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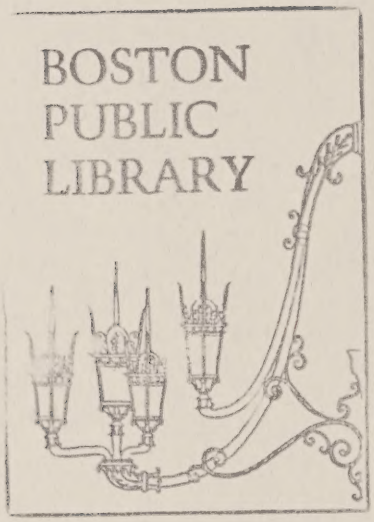
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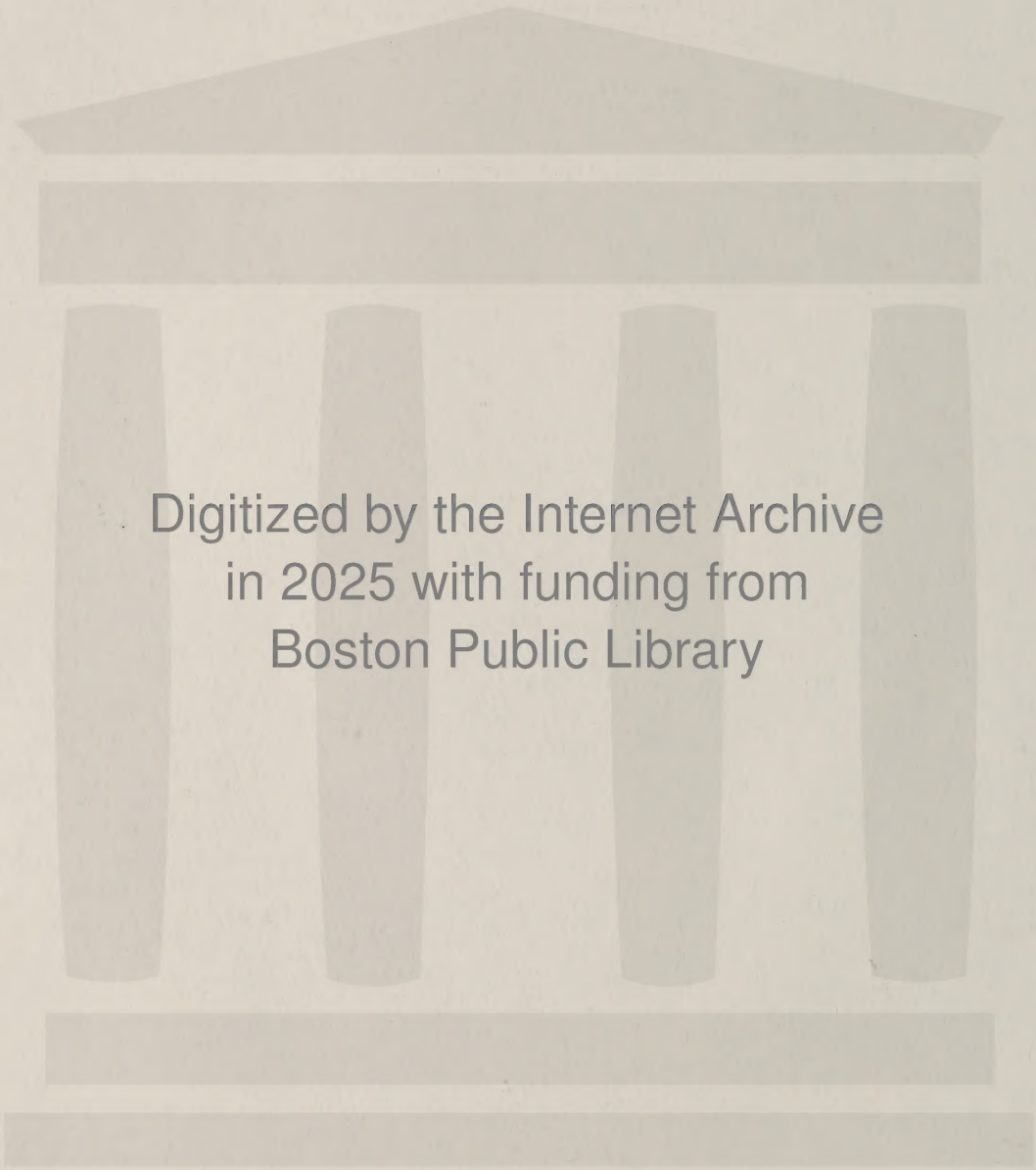

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TAX CONSTRAINT AND FISCAL POLICY: AFTER THE PROPERTY TAX

Volume I - Substantive Findings

Final Report of the
Tax Policy Analysis and Planning Study Effort, 1976-81,
Undertaken with the Financial Support of
HUD Research Grant H-2628-RG

John Avault and Alexander Ganz
With the Collaboration of Gregory W. Perkins
Boston Redevelopment Authority
Research Department

September 27, 1983

Kevin H. White, Mayor
City of Boston

Robert J. Ryan, Director
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Alexander Ganz, Research Director
and Tax Policy Study Director

Boston Redevelopment Authority
Board of Directors
Robert L. Farrell, Chairman
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An Opportunity for Imaginative, Innovative, Forward-Looking Law-Making

FOREWORD

The Office of Policy Development and Research of the U.S. Department of Housing and Urban Development had pioneered in recognizing fiscal policy, research and analysis--how the provision of services and facilities was financed--as an important area of inquiry on the future of cities and their people and their problems and needs. In this vein, OPD&R was early concerned with the local groundswell for property tax limitation and the problems of the administration, equity and burden that were feeding the limitation initiatives springing up all over. OPD&R early recognized the questions as major--dealing with the vital signs of the health and well-being of cities--and reasoned that the public interest would be best served by encouraging the assembly of an improved information base and analytic technique, the better to cope with the burgeoning problem of high and inequitable property taxes and the pressures for tax limitation.

In this sense, OPD&R's pioneering effort was in the forefront of the emerging larger national issue of tax limitation.

Thanks to OPD&R, Boston and Massachusetts were forewarned and armed with new data bases and analytic techniques, which, though only modestly succeeding in changing the course of subsequent events, have served decision-makers well.

Following the California experience, Boston and Massachusetts are implementing tax limitation. The way of life is changing. Tax levies have been reduced. Cities and towns are groping with how to live with less.

Boston is tightening the belt, reducing the burden on property taxpayers, and exploring means of raising alternative state revenues and improving their distribution.

The pioneering initiative of OPD&R, a new research effort was mounted creating a new data base with improved and innovative analytic techniques.

In summing up the "bottom line," a fair assessment of the impact of the research effort could note the following pluses and minuses.

In its key and most ambitious goal, the broadening and expansion of the City's revenue base, the research effort was not successful.

In other aspects, nevertheless, the contribution of the research effort may merit recognition.

Since 1976, the Boston economy has experienced a remarkable growth and transformation, aided, in part, by a fiscal strategy designed to provide an expanded level of public services and facilities to enhance the City as an attractive place to live and work and invest. The fiscal information and analyses mounted by the tax policy research effort was supportive of the design and evolution of the fiscal strategy.

A broad expansion in state revenue sharing, and improvement in its distribution, in 1978, benefited from formulae and analytic capabilities of the tax policy research effort.

The successful adoption of the classification amendment, in 1978, drew on the analytic capabilities of the tax research effort.

This report focuses on this research effort, its findings, methods, and organization. It looks at what was wrong with the property tax in Boston, the related problems with the City's revenue base, the State

role, the relationship to the fiscal needs of the City, and of course, the role of City fiscal policy in economic development.

PREFACE

How the "final report" is organized.

The "final report" of the tax policy analysis and research effort is in three volumes. Volume I presents substantive findings. Volume II details the use of analytic tools and techniques, the information base generated, and the related analytic theory. Volume III contains background documents--eight reports of the project monitor, a scholar's "case study" review of the tax research effort, a paper by the authors presented at a 1978 Conference on Tax Limitation and reprinted in the National Tax Journal, and a paper on revaluation and tax classification by Raymond Torto, Special advisor to the Mayor on Tax Policy.

Volume I - SUBSTANTIVE FINDINGS - is made up of six chapters.

Chapter 1, "Summary", has three "Parts". "The Study Effort", Part One, describes the goal of a broader information base, with improved analytic tools, to spur tax modernization and reform to help Boston's economic development by assuring the flow of revenue needed to meet requirements for public services and facilities, and how this goal was carried out. The central information and analysis focus on projecting the impact of revaluation on property values and tax burden shifts, and the projection of how classification and equalization would work made up much of the study effort. "The Fiscal and Development Question", Part Two, reviews the transformation of the City's economy and the role of fiscal strategy in modernizing and advancing Boston's economic base. Landmark achievements of the City's fiscal strategy are recorded and the elusive goal of broadening the revenue base is noted. Key elements of the "fiscal question" are identified, including the role of the post-1967 growth in public services and infrastructure, a comparative analysis of Boston's municipal employment role with that of other large cities, the misnomer "Taxachusetts", Proposition 2½ as a faulted measure, and its impact on capital construction, jobs and revenue. The need to reform the property tax, and its antecedents, evolution, dispersion and distortion, as central to the imperative for tax modernization, are noted. The projected impact of revaluation and classification are described. "The Role of Advisors:, Part Three, summarizes a basic feature of the tax policy research effort, namely, the wide range of involvement in design and review by a peer group of urban activists, an elite academic committee, a Boston city policy

committee, an astute and experienced project monitor, a scholar's case study analysis, and our federal grant program manager.

Chapter 2, "Performance of Boston City Government," presents a review of the emergence of New England as a resurgent region and Boston's dynamo role, and how this related to Boston's recent fiscal history, and the City's successful fiscal strategy (until "2½"). New analyses of municipal expenditure trends and their long-term stability, until "2½", are shown, including outlays for public services and improvements, the relation to the City's economy, changes in the structure of municipal employment, and comparisons of municipal employment roles with that of other large cities. How Boston's indebtedness history mirrors the change in the City's fortune and strategy is seen. In this setting, municipal revenue structure and trends are reviewed, including the unique role of the property tax and the limited role of state revenue sharing. The unprecedented impact of 2½ in rolling back real levels of public service, public employment, and public improvements in less than two years, is documented. The recent setback in revenue and tax levy is contrasted with an assessment of future revenue needs. These are seen in the light of Boston's role as a generator of State revenue, the small share returned in state revenue sharing to Boston, and the revenue yield anticipated from development underway and planned.

Chapter 3, "Broadening the Revenue Base, An Elusive Goal," reviews the deficiencies in Boston's revenue sources and the shortfalls in current reform proposals. The property tax is a poor keystone for Boston's revenue structure. Its narrow and inelastic base does not mirror or respond to Boston's expanding economy. It is regressive,

burdensome, and its levy is now being rolled back by Proposition 2½. It has proven to be difficult to administer. State law proscribes any other local "own source" revenue. In the meantime, state revenue sharing has lagged and there are inequities in its distribution. The shortage in state revenue sharing flows, in good part, from a basic imbalance in the state and local tax structure. Recent tax caps and Proposition 2½ have combined to reduce Boston's revenue. Current tax reform proposals fall far short of Boston's revenue needs.

Chapter 4, "The Evolution of Property Tax Administration in Massachusetts" relates the legal and administrative history of inconsistent enforcement and general noncompliance that distinguished Massachusetts assessing standards prior to the 1974 Sudbury case. Analysis of statewide data shows that four years later the constitutional requirement of property tax equality was still widely breached by varying but pervasive patterns of de facto classification. The prospect of shifting a significant share of very high tax burdens onto residential property led to the popular adoption of a constitutional amendment allowing favorable tax treatment for homes, apartments, and open space. This chapter also traces the convoluted history of judicial relief for individual taxpayers and illustrates the extraordinary costs to Boston involved in the 1979 Tregor ruling. Detailed examination of Boston's property taxes and values shows how complex and costly correction could be.

Chapter 5, "Equalization and Classification" describes and explains Massachusetts' two classification laws. The first, a mandatory system enacted as Chapter 580 of 1978, was never implemented prior to its repeal and replacement by the local option rules of 1979's Chapter 797.

The simulated impact of the earlier legislation is compared in fine detail with the alternative of equalization without classification to explain both the voters' overwhelming approval of the enabling amendment to the State Constitution and the legislature's subsequent revision of the law. While widely supported in 1978, classification has been largely ignored in 1983. Detailed estimates of the significance of classification in Boston, at the time of its adoption in 1978, show that it would have averted major average tax shifts that would otherwise have attended equalization and legal compliance. Further detail shows that many large tax changes were unavoidable in Boston due to existing dispersion about average tax levels. Current legislation would have had results similar to those illustrated, and the present classification law has been implemented in Boston, but in a context much changed by the tax reduction measure, "Proposition 2½".

Chapter 6, "The Present Arena for Action," reviews the aftermath of "2½", the landmark achievement of long-held goals to reduce the role of the property tax in Boston and Massachusetts, the notable reduction of the property tax levy and the curtailment of public services and public investment, the widely held view of scholars and fiscal analysts on the need for new sources of revenue, and the critical opportunity for imaginative, innovative law-making. Reflecting the urgency of the question, the year 1983 has been unusually rich in the number, range and quality of tax and fiscal policy reform measures proposed. Drawing on many of these ideas, an illustrative fiscal policy reform program is presented, addressed to the needs of Boston and the other cities and towns. Major expenditure sectors are matched with targeted revenues. The reliance is principally on state measures, taking ample advantage of

Boston resources. The many and thoughtful proposals of 1983 are reviewed, and some of earlier years are mentioned. The capacity of a thriving city and state economy to generate the new revenue needs is noted. What's now needed is creative law-making and the marshalling of constituencies.

Volume II - ANALYTIC TOOLS AND TECHNIQUES -presents the details of key aspects of the tax research analysis, and the role in policy and decision-making. These are summarized in Chapter 1. How property values were determined and used to identify the dispersion and distortion in effective tax rates for both residential and commercial property are the subjects for Chapter 2. The development of a unique index measuring residential property value trends, by neighborhood, and the use of a tax capitalization technique for projecting the differential impact of revaluation and classification, by type of property and by neighborhood, are set forth in Chapter 3. Key data base analyses of revenue needs, revenue and expenditure patterns, municipal data for Massachusetts, and state revenue sharing formulae are shown in Chapter 4. The analytic computer programs for projecting revaluation and classification are outlined in Chapter 5.

To unravel and assess the extent of the dispersion and distortion in effective tax rates, and the consequent impact of court-ordered revaluation and the remedial measure, classification, required the development of a new information base as well as innovative analytic tools and techniques. A major, painstaking and time consuming effort centered on (1) the measurement of the current market value of residential property, relying on a meticulous tallying of the sales value in market transactions, and (2) the survey of the operating cash flow of commercial property so that property taxes could be related to income flows and capitalized value, in order to identify, in both cases, the dispersion and distortion in effective property tax rates. To measure long-term trends in the dispersion and distortion of effective property tax rates on residential property, by neighborhood, required

the creation of a unique index of the market value of residential property. To project the tax burden shifts, by type of property and by neighborhood, that would come about with revaluation, and again with classification, required the creation of an innovative technique of tax capitalization. In each of these cases an extraordinary data base was assembled and very elegant analytic tools were devised. These are presented in "Summary" in Chapter 1.

"The Measurement and Analysis of the Market Value of Taxable Property, Residential and Commercial, and the Distortion and Dispersion of Effective Property Tax Rates" is the subject of Chapter 2. Assessed values of taxable property in Boston and other cities and towns in Massachusetts (prior to revaluation) bore very little resemblance to "fair market value". Recognizing this, the State Department of Revenue publishes each year its calculation of "equalized value", an information needed for the application of state revenue sharing formulae. But these calculations of "equalized value", in turn, represent a valuation subject to appeal and challenge and are in effect, a "negotiated" value, falling short of true market value. The analysis of the problems of the property tax and approaches to its reform required a new data base, especially an up-to-date measure of the market value of taxable property to serve as a benchmark for determining the extent of dispersion and distortion in effective tax rates. An elaborate and meticulous effort was undertaken.

For residential property, the approximately 4,000 market sales per year, of the City's almost 100,000 residential parcels, were carefully matched, by type and by neighborhood, and related to assessed values, to provide estimates of assessment-market value ratios. For commercial

properties, where sales data were scarce and hardly representative, an extensive survey of operating income, taxes and expenses provided detailed information on the relation between property taxes and operating income by property type. Values were estimated through the income capitalization method, and differential effective tax rates calculated by property type. This elaborate information base, thereby, made it possible to estimate the market value of taxable property, differential assessment-market value ratios, effective tax rates and the dispersion in the property tax burden. These estimates of the market value of taxable property, and the methods by which they were derived, provided early elements of information and analytic technique to the work of the newly established Office of Property Equalization which has since developed a broad new information base toward its goal of revaluation by Fall 1982.

"Residential Property Market Value Trends and the Use of Tax Capitalization to Project the Impacts of Revaluation and Classification" is the theme of Chapter lII. It was important to know not only the current dispersion and distortion in the effective tax rates for residential property, by type and neighborhood, but also, how values (and assessments) had changed over time. For this purpose, a unique index of the market value of taxable property was constructed, based on linked-pairs observations, linking information on changes in the value of specific houses which were sold at least twice during the observation period, 1955-79. To project the differential impact of revaluation and classification, by property type, and in the case of residential property, by neighborhood, it was necessary to devise a technique of tax capitalization to portray the direct and indirect effects of changes in

effective tax rates on property value. Both types of analytic techniques were developed very elegantly. This data base was was a principal ingredient in the landmark report by Daniel M. Holland and Oliver Oldman, "Estimating the Impact of Full Value Assessment on Taxes and Value of Real Estate in Boston," published in Metropolitan Financing and Growth Management Policies: Principles and Practice, edited by George F. Break, University of Wisconsin Press, Madison, 1978.

Chapter 4, "The Fiscal and Economic Context for Reducing the Role of the Property Tax," contains background papers developed in the course of the study. "Boston's Recent Fiscal History; City of Boston Expenditures and Revenue, 1960-FY1982," by Gregory Perkins, is a fiscal accounts analysis drawn principally from the records of the Auditing Department. The tables from that work are contained here. "The 'Lottery' Formula" describes this state aid distribution mechanism and lists the share of aid due Massachusetts' 351 cities and towns based on FY1976 and FY1978 parameters. "Making Proposition 2½ Work Through Statewide Revenue Reform" examines fiscal benefits to the cities of Boston and Lynn that would derive from "place of origin" allocation of revenues from new or expanded taxes. An increase in the meals and retail sales tax rates, a broadening of the sales tax base to include selected services, and a temporary payroll tax are the options considered.

"Simulating Revaluation," Chapter 5, presents one of the basic contributions of the tax study effort to contemporary tax policy in Boston, namely the technique developed for projecting the impact of revaluation and classification through tax capitalization. Here described and shown are the elements of the analysis, the computer

program which generated the projections, the classification alternatives, and other related analysis programs.

Volume III, "TECHNICAL REPORTS AND BACKGROUND PAPERS: A CATALOG OF SELECTED MATERIALS," contains the following background papers and technical reports.

1. Eight "Monitor Reports" by tax study project monitor, Joseph Slavet, as follows:

   Phase I
   - First Report, September 1977, 20 pages
   - Second Report, November 1977, 19 pages
   - Third Report, January 1978, 28 pages
   - Fourth Report, July 1978, 42 pages

   Phase II
   - First Report, December 1978, 18 pages
   - Second Report, February 1979, 21 pages
   - Third Report, May 1979, 13 pages
   - Fourth Report, March 1980, 36 pages

   The project monitor reports are a step-by-step chronicle of project goals, policy focus, data base development, analytic effort, projection technique evolution, and organizational roles.

2. "Tax Relief and Reform in Massachusetts,: John Avault, Alex Ganz, Daniel M. Holland, published in National Tax Journal, June 1979, Vol. XXXII No. 2, 17 pages.

   This is an abridged version of a paper presented at the Conference on Tax and Expenditure Limitations held at the University of California, Santa Barbara, December 14-15, 1978. The authors examine the then just-adopted state constitutional amendment legalizing property taxation by class (classification) in Massachusetts as an ameliorating measure in the face of court-ordered equalization. Imbalance in a state and local tax structure overly dependent on the property tax is seen as the major problem still demanding solution. Newly developed data base elements and techniques for analysis and projection are used to present estimates of the market value of taxable property, tax burden distortions and dispersion, and shifts under equalization and classification, and the technique of tax capitalization.

3. "Providing Analytic Capacity for Local Urban Policy: The Boston Tax Policy Project," Stephen R. Rosenthal, Professor, Boston University, July 1979, 51 pages.

   Professor Rosenthal's paper is a case study of how the participants and advisors in the Tax Study Project saw their roles and goals and how they interacted in the conduct of the tax study effort. The successes and shortfalls in the design

and carrying out of a complex research effort are carefully dissected.

4. "Estimating the Impact of 100% Valuation and Taxation by Classification in Massachusetts, by Raymond Torto, prepared for the Massachusetts Mayors' Association, June 14, 1978, 73 pages.

Professor Torto presents Tax Policy Study Project estimates of property tax burden shifts that might result from equalization under full value (100%) and under differential rates of taxation by property class (classification). The rationale for classification (Chapter 580 now replaced by Chapter 797 of Massachusetts state law) flows from the concept of the greater ability to pay for income producing property, on the one hand, and the greater need now to achieve the desired goal of reducing overall reduction of property tax levies through tax reform. Appendices detail the data base and estimation methods.

5. "Reports from 1976 Boston Property Sales; A Technical Report"

Ward summaries of property sales and related computer procedures are presented. These reports were prepared from a computer file building information management system (HMS Sales) using a report generator feature. They consist of descriptive listings of individual sales records, arrayed by Ward. Reports were prepared by Charles Westfield and Frances Larson.

6. "Graphic histograms and related summary statistics of Boston residential property sales, by ward and property type; A Technical Report with the acronym HIST".

Within each of Boston's twenty-two wards and for the City as a whole, HIST describes property sales for each of eight property types whenever at least five valid and complete arms length market sales occurred. Histogram graphs detail the distributions of both sales prices and assessment/sales ratios, showing the number and percent of properties in each of five magnitude categories. The middle category is centered about the sample mean and the inner three categories each have a range of twenty percent of the sample mean value so that all distributions are uniformly portrayed in terms of the Coefficient of Dispersion about the Mean. The two outer categories are open ended. The following measures are printed for each of sales price, assessed value, and assessment/sales ratio: range, mean, standard deviation as well as the Coefficient of Dispersion about the Median. HIST processes data from the HMS Sales structured file. HIST was designed by John Avault and written by Karl Sittler in the PL1 language.

7. "Property Tax Equalization Simulations for Boston and All Other Massachusetts Cities and Towns; MASSTAX, A Technical Report".

The effects of 100% valuation and classification are estimated, both before and after equilibrium tax capitalization. Taxes and values are reported as parcel averages for ten types of taxable property in each of 344 cities and towns. For Boston and summaries of four population groups and the state, the results are reported as both parcel averages and dollar totals. All simulations are performed "as if" equalization occurred for the fiscal year 1978. These simulations for Boston and all other cities and towns played an important role in the 1978 election year debate over the classification enabling amendment, to the State Constitution, which was adopted. This output is from a computer program (MASSTAX 2) designed by John Avault and written by Karl Sittler in the PL1 language.

VOLUME I

SUBSTANTIVE FINDINGS

related formulae, in 1978, improved Boston's revenue base. The successful major first stage implementation of equalization, in 1980, raised revenue yields by eighteen percent, and achieved roughly one-third of the revaluation task. The broad acceptance of Boston's credit in the municipal bond market, until 2½, funded the City's public improvements program at a reasonably low cost. The successive carrying-out of austerity measures, begun after 1972, resulted in expenditures, in inflation adjusted dollars, and levels of employment, in 1980, that were less than those in 1972, and only marginally larger than those in 1967, the year preceding the era of the present City administration. (The forced cutback in services and public improvements since 1980, however, has reduced Boston municipal employment levels by a fourth, and municipal expenditures by one-fifth, measured in inflation adjusted dollars, diminishing the role of municipal government to levels far below those of modern times.) In comparison with federal and state spending trends, Boston is exemplar in its frugality. In the 1972-80 period, federal expenditures rose by forty percent and those of the state by 29 percent, while those for Boston fell by five percent, measured in dollars adjusted for inflation.

Broadening the Revenue Base, An Elusive Goal

Though Boston's major fiscal policy goal, the broadening of its revenue base and reform of the state and local tax structure to lessen the dependence on the property tax, has proven to be elusive, thus far, the potential legislative response to Proposition 2½ continues to provide hope for a new opportunity for modernization of the tax

structure. Boston, with one of the highest ratios of jobs to population of any large city, is an extraordinary generator of revenue, but the antiquated state and local tax structure of the Commonwealth does not enable Boston to latch on to an adequate share of the revenue it sends forth. Boston, with ten percent of the state population, produces thirty percent of a broad range of services, 21 percent of all income earned and 17 percent of state tax revenue raised in Massachusetts, and receives back in state revenue sharing, less than one-third of its contribution to state revenue raised. Massachusetts lags the nation and its industrial competitor states in the level of state revenue sharing with local government. And, in comparison with the rest of the nation, the Massachusetts state and local tax structure is imbalanced with (1) over-reliance on the property tax (the cities' only source of tax revenue, and one that is inelastic), (2) underutilization of the broad-based sales and income taxes, which respond more readily to economic growth, and (3) a business contribution to state and local taxes raised that has been reduced from a 34 percent share, in 1957, to a 21 percent share, in 1980, and is only two-thirds of the average proportionate share of the seventeen largest industrial states.

The Critical Role of the Post-1967 Growth in Public Services and Infrastructure

The extraordinary role of Boston's expenditures for services and infrastructure has been successfully carried out within the constraint of an inelastic city tax base and limited state revenue sharing. Despite these limitations, Boston provides a range of innovative services, non-existent in 1967, which have contributed fundamentally to the revival of the City's economy and the stabilization and revitalization of its neighborhoods.

Boston's Municipal Government Role, A Comparative Analysis

Characterizations of Boston as a high spender are frequently based on improper comparisons with other large cities. When more appropriate comparisons are made, Boston's municipal government role is seen as only moderately larger than that of the average of the nation's large cities. In fact, the role of Boston City government is smaller than that in New York, Philadelphia, San Francisco, Memphis, Washington, D.C., New Orleans, Jacksonville, St. Louis, and Nashville.

The comparative role of Boston City Government has several dimensions. Boston municipal employment is twenty percent above the average for the nation's large cities in relation to city resident population served. In terms of cities as workplaces, municipal employment in Boston is two percent higher than the average relative to the total of those who work in Boston and in the nation's large cities. When municipal employment is related to the combination of people served--those who live in the city as well as those who work there--Boston is eleven percent above the average. When recognition is given to the metro area role of cities, by relating municipal employment to the metro area population served, Boston's City Government role is seen as smaller than that for the average of the nation's thirty largest cities.

Taxachusetts, A Misnomer

New evidence suggests that Massachusetts' reputation for spending may also be exaggerated. Based on new studies of the Legislature's Joint Committee on Taxation and the University of Massachusetts Center for Policy Studies, it appears that the misnomer of the state as Taxachusetts is a concept whose time may have passed. As a consequence

of recent more rapid growth in personal income in Massachusetts and the tax cap placed on Massachusetts cities and towns, in 1979, Massachusetts state and local taxes are down to sixteen percent of state personal income in comparison to fifteen percent for the nation as a whole. When ranked with the seventeen largest industrial states, Massachusetts state and local taxes per capita, adjusted for geographic differences in the cost of living, are only one percent higher. Comparisons provided by the Advisory Commission on Intergovernmental Relations also reveal that Massachusetts' spending for revenue sharing (aid distribution to cities and towns), relative to local own source revenue, is less than the national average and that for the seventeen largest industrial states.

Proposition "2½", A Faulted Measure

In this setting, Massachusetts' Proposition 2½, approved in a statewide ballot in November 1980, and described as "the most ill-conceived piece of legislation ever adopted in the State of Massachusetts," by former Mayor Sullivan of Cambridge, threatens to undo the role of Boston City government in advancing the well-being of the City's economy and the revival of Boston as a livable city. Proposition 2½, constraining the property tax levy to 2½ percent of market value, requires a fifteen percent per year reduction in levy until the limit is reached, and further restricts the growth in levy to 2½ percent per year after the limit is reached, with no allowance for inflation. In Boston's case, with a levy that was approximately eight percent of market value, the levy reduction called for is substantial. The first year cut in the tax levy, including the auto excise tax loss, was $87 million. Since fixed charges make up more than two-thirds of Boston's municipal expenditures, the levy reduction in the first year forced a 35

percent cut in fire, police and education services. As State Secretary of Commerce and Development Kariotis testified before the Joint Committee on Taxation, no enterprise can successfully withstand a 35 percent cut in its cash flow. The Boston Municipal Research Bureau asked the question, in its January 28, 1981 Special Report, "Can Boston survive the first year impact of Proposition 2½?" It concluded that "....implementation of 2½ will cut severely into essential municipal services".

Impact of the Public Capital Construction Freeze, Generated by "2½", on Jobs and Revenue

Moody's, the principal municipal bond rating agency, had removed the rating of bonds for Boston and 36 other cities because, with Proposition 2½, there was no assurance of a revenue base to finance bond issues. An analysis of the impact of the City capital construction freeze imposed, because 2½ makes general obligation bonds unsalable, shows that $5.6 billion of mainly private investment underway and planned would be jeopardized with resulting losses of state and City revenue of $72 million and $35 million, annually, and 44,000 new permanent jobs foregone. The neglect of funding for public infrastructure, including maintenance and repair, could mean deterioration of the City as a place to work and live.

The curtailment of public services including education, police and fire protection, could rapidly unravel the livability of Boston for residents and commuting workers, for rich and poor alike. Development, job creation, and the expansion of economic opportunity would lag. This impact, which no one has legislated, could occur if compensating measures for broadening Boston's revenue base are not adopted to restore the viability of Boston City government.

"2½", A Response to Failed Legislative Expectations

The 60 percent-40 percent November 1980 vote in favor of Proposition 2½ is attributable not to any desire of the electorate to wreck their own municipal government, but rather to the accumulated frustration with the failure of the legislature to produce tax reform measures following more than a decade of articulated concern. The Master Tax Plan Commission of the 1960s and early 1970s had made exhaustive studies and extensive recommendation, for reducing the role of the property tax and expanding the broad-based sales and income taxes. When all of these efforts failed, and in the absence of any serious legislative effort to modernize and reform the imbalance in Massachusetts state and local tax structure, the electorate was ripe for the appeal of a faulted proposal--Proposition 2½. Barbara Anderson, one of the leaders of Citizens for Limited Taxation which sponsored 2½, recognized that the omission of any provision for compensating revenues for Massachusetts cities and towns is a major shortcoming which the legislature must right.

The Property Tax, Need for Reform

The property tax is and has been a legitimate object for tax reform in Massachusetts. The property tax is regressive in Massachusetts cities and towns, according to recent studies.* In addition, it is a

* Padraig O'Malley and Raymond G. Torto, Center for Studies in Policy and the Public Interest, University of Massachusetts, The Massachusetts Fiscal System: Structure and Performance, Boston, March 1981.

poor source of revenue growth in Boston, with an inelastic response to economic expansion in a city whose services-oriented economic base is not capital intensive, and where a large and increasing share of property is tax exempt by virtue of governmental, medical, educational, and non-profit use status, and the post-1960 urban renewal related exemption of new construction related to blight elimination. Most serious of all, the administration of the tax, in Boston, over a period of years, had become increasingly inequitable with widening dispersion in the effective tax rates by type of property and neighborhood. The result has been court-ordered equalization, in 1974, a constitutional amendment legalizing the differential taxation of property, by class, in 1978, and the implementation of equalization, in 1983.

How Boston Adapted to the Property Tax

The widening dispersion in the relationship between assessed value and market value was shaped, over a long period of years, by a variety of historical, institutional, economic and fiscal factors. Long-term trends mirror the epochs of growth, stagnation and revitalization of Boston as a place to work and live. As a legacy of the period of stagnation (1930-1960), when jobs and population were leaving the City in record numbers, it became the practice, first, to reduce assessments so that people would not lose their homes, and then to limit reassessment, and to raise the revenue yield through the relative shift of tax burdens to commercial property by increasing the property tax rate and assessments on commercial property. This practice continued long after the emergence of substantial but differential growth in the market value of residential property. By 1981, the State

Department of Corporations and Taxation was reporting an "equalized" value for taxable property in Boston of $5.2 billion (the state's standardized estimate of market value), while Boston's assessed value was reported at $1.9 billion. Boston's own estimate of market value was $5.6 billion, and some analysts placed the "real" value at $10 billion and upwards.

Widening Dispersion and Growing Distortion in Effective Property Tax Rates

With residential assessments held stable while the City was experiencing differential rates of growth in the market value of property, by neighborhood and by type, a widening dispersion emerged in effective property tax rates. Poorer neighborhoods and older commercial and multi-family residential property were increasingly impacted by higher rates of taxation. These were the types of properties whose values were increasing less rapidly. Since assessments were held stable, their tax levies rose as rapidly as those for properties whose value was rising. This trend was exacerbated by introduction of urban renewal-related tax exemption for new construction for the elimination of blight, beginning in the 1960s. As a consequence, older commercial properties were taxed more heavily than new, older non-residential more than residential, and poorer neighborhoods more than others. Property taxation in other Massachusetts cities and towns came to have similar patterns and characteristics.

The Potential Impact of Revaluation and Equalization of Effective Property Tax Rates

As the City came to recognize the broadening magnitude of the disparities, it also became aware of the great potential impact of shifting the burden to equalize taxation in the absence of a new revenue

source which would enable it to reduce relative assessments for those properties overtaxed as a means of achieving equalization. The shift of burden from poorer neighborhoods to others could cause an exodus from the City. The shift of burden from non-residential to residential properties could inhibit the City's attraction as a place to live.

Implementation of Equalization

Following a landmark mandate by the State Supreme Judicial Court, in the Sudbury case, in 1974, Boston and all other Massachusetts cities were ordered to equalize property assessments in accordance with fair market value. Boston reluctantly began to undertake the first steps of a time consuming, complex, and costly process of studying how the reassessment of property values for the City's 100,000 parcels might be carried out. A specially-staffed Office of Property Equalization was established in 1976. The first major stage of equalization was carried out in October 1980, with an average increase in assessments of approximately ten percent achieved by raising below average assessments to average levels, by property type, in the 130 sub-neighborhood areas into which the City was divided, thereby accomplishing an estimated one-third of the total adjustment that would be required. At the same time, the City's financial liability for payment of abatements to owners of commercial and multi-family residential properties, who had been overtaxed, reached very substantial sums. The abatement liability crisis was softened by special legislation and the issuance of bonds in 1982 and equalization was finally completed in 1983.

Classification

In the meantime, a state constitutional amendment adopted in 1978 legalized the differential taxation of property by class. The measure, designed to mitigate the extent of tax increase for home owners, had to wait on the completion of equalization for its implementation.

Part Three - The Role of Advisors

Peer Review Group

From the very beginning, the Tax Policy Study effort benefited from the advisory role of Peer Groups. The Urban Consortium for Technology Initiatives, a Washington, D.C. based collective effort of 32 cities to share technology and know-how in urban affairs, raised questions, and offered observations and suggestions in the early phase. Since 1978, three outstanding fiscal analysts have provided an intense scrutiny of the study effort and recommendations on the evolution of Boston's fiscal strategy.

The Urban Consortium looked to the opportunity for technology transfer and concluded that, despite the uniqueness of Boston's fiscal structure and the tax reform solutions that might be suitable, the analytic techniques developed would be of interest to other cities. These included our work on tax capitalization, projection of equilibrium value, and tax classification. The Consortium task force was critical of Boston assessing practices. They found our experience with tax letters of agreement, providing incentives for new construction, of interest. They also expressed admiration for the use of information and analysis for policy advocacy.

Thomas R. Kershner, Research Director for the State of New York Temporary Commission on the Real Estate Tax, engaged in a process of taxable property revalution and classification somewhat analagous to that of Massachusetts, looked at our work with a view to both gaining and giving insights, with New York's task in mind. Kershner was interested in all aspects of the revaluation process in Boston and in

Massachusetts--expectations, methodology, mechanics and timetable. He was also interested in the impact of Boston's tax letters of agreement, and Boston's liability in court litigation on tax abatement appeals. He thought Boston might take better advantage of in-lieu-payments from tax-exempt, non-profit institutions and the Commonwealth.

Robert W. Cowan, Jr., Finance Director for Seattle City Light, had empathy for the tax reform objective of the study effort and the use of tax exemption as a development incentive. He also commended the institutionalization of the analytic technique and research methodology, which had made it an integral part of the decision-making process in Boston city government. On the other hand, Cowan was critical of the City's assessment practices. Cowan also favored local option revenue alternatives.

George E. Peterson, Director, Public Finance Group, the Urban Institute, a Washington, D.C., non-profit research organization, questioned some of the tenets of the study effort. As an alternative to raising new revenue with tax reform, Peterson suggested a focus on cost controls, including pensions, and the potential for reducing wage levels by lowering the age structure of the municipal labor force. Peterson was skeptical of the projected effect of overassessment reduction on value and the incentive to invest. Peterson raised some cautionary signals on the revaluation methodology, including the need to factor in obsolescence, to reduce overassessment, and to regularly monitor changes in value.

Academic Advisory Committee

The tax study effort benefited from a unique and outstanding Academic Advisory Committee which had an important influence on the

research scope, the research design, and the tax strategy formulation throughout the course of the undertaking.

Professor Robert Weinberg, Director of the Public Management Program of the School of Management, Boston University, encouraged staff work on the development of the data base and analytic technique as a most essential stage in marshalling an informed constituency in support of an ambitious tax reform effort.

Professor Daniel M. Holland, Alfred P. Sloan School of Management, Massachusetts Institute of Technology, Editor of the National Tax Journal, early influenced the research design of the tax study effort. In March 1976, Professor Holland's critique of the research proposal, prior to the initiation of the study effort, strongly affected the direction subsequently undertaken. In his letter, dated March 1976, Holland enthusiastically supported the objective of the effort and viewed the proposed methodology as promising. At the same time, he questioned the use of a sophisticated computer software program model to project equilibrium value of residential property in a revaluation process. He conceived the possibility of outcomes outside the range of the model projection. Holland urged the creation of a new and larger data base.

In April 1977, Professor Oliver Oldman, Director, International Tax Program, Harvard Law School, presented "A Simple Proposal for Immediate Consideration and Implementation in Boston," which laid out the revaluation strategy actually adopted in the City's major advance towards equalization in Fall 1980. Professor Oldman's proposal was to raise every under-assessed valuation to the average assessment ratio prevailing. In the Fall of 1980, Boston's Office of Property

Equalization did exactly this, dividing the City into 130 sub-areas and using assessment-sales ratios, by type of property and by neighborhood, and raising assessments differentially city-wide by approximately ten percent.

City Policy Committee

The tax policy research group worked with an extraordinary, top-level, gifted City Policy Committee who used to advantage the talent of the research team to generate key policy formulations at critical stages of the drive toward classification, equalization and tax reform. Much of the work of the tax study data base and analytic technique was institutionalized in a number of city departments which were very responsive to the effort.

James Young, former Deputy Mayor for Fiscal Affairs, presented, systematically and in depth, the current fiscal condition of the City and its antecedents, at periodic intervals, as background to the work on development of the data base and the sharpening of analytic tools. At critical periods he would draw on the research team for urgently needed work on the market value of taxable property, state revenue sharing distribution formulae, the impact of raising revenue through the differential raising of assessments, by class of property and by neighborhood, and indebtedness strategy.

Raymond Torto, former Special Advisor to the Mayor on tax policy, and later Commissioner of Assessing, used the research team as a principal staff resource in his successful leadership role on classification. Following his analytic policy guidelines, the research team developed and improved techniques for tax capitalization and projecting the impact of equalization and classification on property

value and the distribution of the tax burden, by type of property, for each of the 351 cities and towns of Massachusetts.

Lowell Richards, Treasurer, commissioned the research team to evaluate the fiscal performance of Boston city government, 1967 to 1981.

Arthur Shea, Director of the Office of Property Equalization, made use of the research team's analyses in formulating the equalization strategy implemented in Fall 1980.

Robert J. Ryan, Director, Boston Redevelopment Authority, drew on the work of the research team for the analysis and projection of the impact of development on state and city tax yields.

Research Project Monitor

The tax research effort was fortunate to have as Project Monitor, Joseph Slavet, who has been intimately involved in Boston fiscal strategy for over a quarter of a century as both key participant as well as analyst. Slavet's careful documentation of the tax study research and planning effort, in the full setting of its antecedents, rationale, alternatives, and significance, is extensively set down in eight reports extending from September 1977 to March 1980, and is contained in Volume III of this report.

Slavet found that the "analytical capacity in tax policy" had been developed "to an extent far beyond original hopes and expectations," and was "felt strongly by decision-makers in the legislative committees of Taxation, and Ways and Means, and by the leadership of the Massachusetts House and Senate as they deliberated final drafts of state aid distribution proposals, state-local cost shifting bills, property tax classification..., and tax/expenditure limitation legislation during the past two years".

On the other hand, Slavet noted that the goal of "an integrated mechanism to facilitate a comprehensive long-range orderly approach to fiscal planning and decision-making" has not yet been achieved.

Slavet had the foresight to identify the emerging questions of state-local fiscal relationships and the trend toward municipal tax/expenditure/budget limitations.

Slavet noted the fulfillment of the goal of the research grant to develop a method for projecting the impact of property revaluation in Boston.

A Scholar's Review

Late in the life of the tax research project, Stephen R. Rosenthal, Professor of Public Management, Boston University, undertook to do a case study of the use of federally-funded research to aid local government. Rosenthal addressed the questions of "what leadership characteristics are required to launch and direct a project of this type?", "how might one characterize the "success" of such a project?", "in what ways does the organizational life of an applied research project affect its success?", and "in what ways are such projects inherently unmanageable?" Rosenthal's study, entitled "Providing Analytic Capacity for Local Urban Policy; The Boston Tax Policy Project," was published as an article in Knowledge: Creation, Diffusion, Utilization, Vol. 2, No. 1, Sept. 1980, Sage Publications, Inc. Please see the appendix Volume III of this report.

Rosenthal saw the project as an effort which succeeded in bringing together "entrepreneurs, technicians, politicians and administrators" around a major public policy issue: how to respond to growing inequities in the property tax". The function of the project was "to

conduct the highest quality, relevant analysis to help the City of Boston, and to provide insights to other urban areas".

Rosenthal's article provides a chronological history of the project, including the organizing phase, and the classification battle of 1978. Treated also are reflections on outcomes of the project, an analysis of the case history, and an assessment of the value of analytic capacity. Rosenthal, in addition, focuses on the need for multiple leaders, the role of trust in a complex interdependent venture, and the significance of external events. Rosenthal viewed the study effort as a political process and he presents many keen insights into personalities.

Michael Schneider, HUD Research Program Manager

Michael Schneider, a HUD Research Program Manager, had established, in the late 1960s, urban fiscal analysis as a matter of federal government concern in dealing with the needs and opportunities of the Nation's cities. In this role, he was deeply involved in encouraging and generating a flowering of urban fiscal research. From this vantage point, in the 1970s, he was able to interrelate the diverse fiscal experience of cities, and he brought a healthy questioning to research design and analytic technique.

In the Boston tax study project, Schneider was looking for the development and sharpening of analytic method, that would be of general interest. This emerged as a nuance of difference in emphasis with the tax study project team who were somewhat more concerned with the substance of tax issues and tax reform in Boston and Massachusetts. It is to his credit and role as representative of the research funding agency that he was patiently supportive of the research endeavor, while persistently raising questions of comparative analytic technique.

2. PERFORMANCE OF BOSTON CITY GOVERNMENT

The performance of Boston City Government, in recent times, can be measured in terms of how a legacy of long-term decline and decay gave way to an extraordinary process of renovation and transformation, now self-generating, as a consequence, in good part, of a farsighted fiscal strategy with a string of successes in a broad range of areas save one, the failure to generate a new revenue base for the City. Like a victorious warrior of old, Boston has become victim to its Achilles' heel, the lack of an expanding, non-property tax revenue base.

Public Investment for Economic Development

Fifteen years ago, Boston was still suffering from forty years of neglect of public improvements and a thirty-year drought in private investment following the onset of the national depression in 1929. Boston was in an advanced stage of deterioration. Rotting piers and obsolescent nineteenth-century public buildings were matched by a deteriorating economic base and population flight. Some $700 million of City public investment, since the 1960s, helped induce $1,250 million of federal and state capital outlays—together bringing about a fundamental renovation of Boston's public infrastructure. (See Tables 2-1, 2-2, and 2-3.) The change from neglect to fix-up is highlighted by the history of Boston's use of its capacity to finance public infrastructure. Net funded debt has risen from the negligible, neglectful level of $59 million in 1956, and $142 million, in 1967, to $545 million in 1980. (See Table 2-4.) The flow of public infrastructure investment, and the policy and planning which they represented, brought a restructured economy in tune with the future directions of that of the nation. (See Tables 2-5, 2-6, and 2-7.) Today, Boston is a thriving, attractive

city, with expanding opportunity, experiencing a self-generating investment boom. (See Table 2-8.)

Boston's fiscal strategy, aided by federal urban renewal money and changes in the national economy favoring services, helped succeed in turning Boston around. The major commitment to substantially renew Boston's public infrastructure, and the provision of tax incentives for new construction to eliminate blight, along with the federal urban renewal role and national economic factors, combined to induce a large flow of private investment, estimated at more than $15 billion since 1967, which fundamentally transformed and modernized Boston's economy, setting the stage for a notable growth potential in the 1980s.[1] Not since the 1920s and the turn of the century has Boston witnessed such a flow of resources.[2] The modernization of Boston's economic structure is evidenced by the change in the composition of employment highlighted by the broad growth in a wide range of services activities, the recent stabilization of manufacturing activity with a growing role for high technology industry, and a revival in retail trade with a renewed suburban shopper participation. Much of Boston's services activities and high technology industry is geared for export to the Region, the Nation and the World. (See Chart 2-1.)

Boston's fiscal strategy softened the nature of the 1970-80 population loss (which had impacted most large cities) and holds the promise of stabilization for the future. The transformation and modernization of Boston's economic base, the growth in the aesthetic, cultural and recreational amenities of the City, and the national growth in household formation due to the postwar baby boom, brought a substantial influx of young adults, largely middle class and

professional, which increased the population of the more centrally located neighborhoods of Boston in the 1970-80 period.[3] This partially offset the continuation of the exodus of families with children which characterized the suburbanization and flow to the Sunbelt process of the 1950-60-70 period. With the new jobs and inflow of young adults, there was an increase in the professionalization of the City's labor force, and a doubling of the proportion of the adult population with a college education, between 1970 and 1980.

Boston's Fiscal Strategy As Dynamo

Boston's fiscal strategy has helped make New England a resurgent region. The dynamo role of Boston's economy is seen in its 46 percent share of employment in services in the metro area, and the latter's 34 percent share of services activity employment in the New England Region. (See Table 2-9.) The special significance of this lies in the fact that services activities account for the major share of the recent growth in employment in New England and its stellar performance in the current national economic recession in relation to that of the nation as a whole and most other regions.[4] See Tables 2-10 and 2-11. In fact, the Boston and New England economies have been less vulnerable to the current recession because of their structural transformation favoring services, high technology industry, and recreation and tourism. As a consequence, unemployment rates in New England have remained below that for the Nation as a whole. See Table 2-12. Boston's dynamo role is also indicated by one of the highest ratios of jobs to population of any large city. See Chart 2-2.

The experience of the last five years demonstrates the change in New England's fortune, and contrasts notably with that of the early

post-war period, when New England was described as "a declining region."[5] The better-than-national average rates of growth, in the 1976-81 years, differ markedly also from those of the early 1970s when New England was severely impacted by the national economic recessions of the period.

Exemplary Fiscal Performance

The role of Boston's fiscal strategy, in aiding the economic renaissance of the City and the New England Region, is complemented by other important measures of exemplary fiscal performance.

- Innovative Services

After 1967, the year prior to the present Administration, Boston introduced a broad range of innovative services designed to revitalize neighborhoods and make the City more attractive as a place to live and to work. The dramatic nature of this change is seen in a 1967 and 1978 comparison of the composition of municipal employment, by bureau and program. Thus, Boston, in 1978, did not have the 891 Welfare Department workers of 1967 (the year prior to the State assumption of the Welfare function), but it had an Elderly Affairs Commission, an Office of Public Service and Little City Halls, a Public Facilities Department, a Community School Program, and storefront health clinics. Boston no longer pays directly for welfare, rightly taken over as a state function, but spends more for public improvements. The broadening and deepening of the role of Boston municipal government was achieved through change in structure and with no rise in municipal employment levels. See Chart 2-3 and Table 2-13. Outlays for public improvements, in 1976, represented thirteen percent of total municipal expenditures,

in contrast to six percent in 1967, the end of an era of relative neglect of public infrastructure.

- Credit-Worthy Rating

The advance in Boston's fiscal performance was applauded in the nation's credit markets. Boston's bond issues, in the 1970s, had broad acceptance in the municipal bond market, until the adoption of Proposition 2½, in November 1980, forced the withdrawal of most of the state's cities and towns from the bond market. In 1983, the City returned to the credit markets with a strength greater than its standardized rating had predicted.

- Successful Revaluation

A landmark milestone toward the modernization of property assessment practices and improvement in tax equity was achieved with the issuance of property tax bills in October 1980, which represented a major step toward equalization and reduction of the dispersion and distortion of property tax assessment rates. The billing, which increased the levy by $80 million, equal to an increase of eighteen percent, reflected both an increase in assessments (one percent) as well as in tax rates(eight percent). An estimated one-third of the equalization task was achieved by raising assessments for underassessed properties to the average assessment rate in 130 sub-areas of the City, and by property class, thereby both raising revenues and narrowing dispersion in assessment rates. The task was completed in the final days of Fiscal Year 1983 with the billing of state certified property taxes fully equalized under the rules of classification.

- An Audit "OK"

Also, in 1980, Boston's financial statements received their first independent audit with the favorable verdict of "no surprises". The City's fiscal 1979 and 1978 financial statements were prepared in accordance with generally accepted accounting principles and were examined and reported on by Coopers and Lybrand. The audit report states that the City's 1979 and 1978 financial statements are fairly presented in accordance with generally accepted accounting principles, applied on a consistent basis, with two qualifications relating to two significant uncertainties. One relates to the estimated potential liability of tax abatement refund claims (see Chapter 4), and a second refers to accounts receivable for services rendered to indigent patients by the City's Department of Health and Hospitals.[6] Despite the revenue constraints of Proposition 2½, Fiscal Year 1983 accounts are expected to show budgetary balance and no deficit.

- Leadership in Classification

With Boston's leadership, a state constitutional amendment adopted in 1978, and modified by state legislation in 1979, legalizes the differential taxation of property by class. This measure is designed to make possible the amelioration of the effect of 100 percent valuation in shifting the tax burden to residential property by allowing, as a local option decision, the application of differential tax rates to each class of property, within a range of set limits and the constraint of an "anti-abuse" clause. The "anti-abuse" clause forbids a jurisdiction from taxing any property or class at more than half again the level they would have paid under the pre-classification standards of strict 100 percent valuation with a single tax rate.

- Improvement in State Revenue Sharing

With the technical assistance of the tax study team, its data base and analytic capacity to project the effect of alternative state aid distribution formulae for each of the 351 cities and towns, state revenue sharing was improved. The addition of a "ratio of place of work employment to population" factor to the traditional criteria of population share and the inverse of equalized property value per capita benefited Boston. As a consequence, state aid to Boston in FY1979 reached the highest level ever (prior to the state aid offsets to "2½" for FY82 and that agreed to for FY83) with an increment of 42 percent over the previous year. See Table 2-14.

- Austerity Since 1972

Boston succeeded in imposing constraints on spending a decade ago. An austerity program adopted in 1972 had led to a level of municipal expenditures (expressed in dollars adjusted for inflation) and employment that, in 1980, even before 2½, were less than those of 1972 and only slightly higher than those of 1967, the year preceding the period of the current administration. In dollars of constant value (at FY1981 prices), Boston municipal expenditures were $838 million in FY1982, $1,002 million in FY1981, and $1,056 million in FY1980, in comparison with $1,013 million in 1967, $1,112 million in 1972, and $1,219 million in 1976. See Table 2-15.

In 1967, municipal employment, including school department employees, totalled 21,424 (without counting direct federally-funded workers). This level had risen to 24,368 in 1971, but was cut back to 21,919 in 1976, and 20,873 in 1980. See Table 2-16. With the inclusion of 3,604 federally funded workers in this latter year, Boston municipal

employment was 24,291. (Both City-funded and federally funded municipal employment were severely reduced in FY1982 with "2½" and Reagonomics, respectively.) In relation to the size of the City's economy, Boston's municipal expenditures' share had not increased, representing 7.8 percent in 1967, 7.8 percent in 1972, and 7.4 percent in 1980. See Table 2-17.

- Frugality in Comparison with the Federal and State Governments

In comparison with the expenditure trends of the federal government and the Commonwealth of Massachusetts, Boston has been extremely frugal, even before "2½". Between 1967 and 1981, Boston municipal expenditures, in dollars of constant value, had declined by one percent, in comparison with a 58 percent growth for the U.S. and a 99 percent increase for Massachusetts. Comparisons with earlier and longer periods show an even greater disparity. See Table 2-18.

Comparison of Municipal Roles with that of the Nation's Large Cities

Characterizations of Boston as a high spender are frequently based on improper comparisons with other large cities. When more appropriate comparisons are made, Boston's municipal government role is seen as only moderately larger than that of the average of the nation's large cities. In fact, the role of Boston City Government is smaller than that in New York, Philadelphia, Baltimore, San Francisco, Memphis, Washington, D.C., New Orleans, Jacksonville, St. Louis, and Nashville. See Chart 2-4.

The comparative role of Boston City Government has several dimensions. Boston municipal employment is twenty percent above the average for the nation's large cities in relation to city resident population served. In terms of cities as workplaces, municipal employment in Boston is two percent higher than the average relative to

the total of those who work in Boston and in the nation's large cities. When municipal employment is related to the combination of people served--those who live in the city as well as those who work there--Boston is eleven percent above the average. When recognition is given to the metro area role of cities, by relating municipal employment to the metro area population served, Boston's City Government role is seen as smaller than that for the average of the nation's thirty largest cities.

An article by a prominent Boston journalist illustrartes the problem of improper comparisons. Warren Brookes, columnist for the Boston Herald American, known for his well-researched and pithy critiques, noted in an article, published June 16th, 1981, that Boston has "one of the largest city bureaucracies per 10,000 population in the country....The Census Bureau shows that Boston spends on comparable services about seventy percent more than the U.S. urban average for the thirty largest cities". But, contrary to the use of the term "comparable services" by Brookes, the Census Bureau publication from which this figure was drawn, City Government Finances in 1978-79, includes education costs as city expenditures for only Boston and five other large cities. See Table 2-19. (Most other cities have special school districts with separate expenditure and funding systems. Information on expenditures in school districts is included in another Census publication entitled Local Government Finances in Selected Metropolitan Areas and Large Counties: 1978-79). The same non-comparability problem is contained in the Census Bureau report "City Employment in 1979", which shows Boston municipal employment per 10,000 population at 54 percent above the average for the thirty largest

cities, and again includes teachers and other public education workers as part of "city employment" only in Boston and five other large cities.

Appropriate comparisons of the size of municipal bureaucracy can be made, and four basic comparisons are here summarized.

When city employment (including that in education) is compared, relative to population, Boston's municipal employment per 10,000 population is twenty percent above that of the average of the nation's large cities. Boston's ranking is exceeded only by that for New York, Baltimore, and Washington, D.C. See Table 2-20. But this ranking must be seen in the light of Boston's other roles.

The comparison presented above, and Warren Brookes' comparison, both relate to the cities' role as a place of residence. Another meaningful comparison can be made in terms of the cities' role as a workplace--municipal employment per 10,000 total city employment (again including municipal education workers for all cities). In such a comparison, Boston ranks thirteenth out of thirty large cities and its level is two percent above the average. See Table 2-21.

A third comparison would be to relate municipal employment (including workers in education) to cities' roles as places to live and places to work. When municipal employment is measured per 10,000 city population and total city employment, Boston ranks eleventh and is eleven percent above the average for the nation's large cities. See Table 2-22.

A fourth comparison would take into account Boston's role and that of other cities, in serving a metro area population. On the average, the nation's thirty largest cities make up two-thirds of their metro area population, in contrast to one-fifth in the case of Boston. This

means that, relative to population size, Boston provides more services to the metro area. This is well documented. Boston has as many jobs as people, with suburban commuters making up sixty percent of the work force, all of whom rely on city services and facilities. Two-thirds of the patients admitted to tax-exempt hospitals in Boston are not city residents. Almost all of the students enrolled in tax-exempt institutions of higher education are not graduates of Boston's schools. A proper comparison to accommodate this circumstance, is municipal employment per 100,000 metro area population. In such a comparison (including municipal education workers for all cities) Boston's municipal employment, relative to metro area population, is less than the average for the nation's thirty cities. See Table 2-20.

Impact of "2½"

Proposition of "2½" has lived up to its advance billing. The requirement of a fifteen percent per year reduction in the property tax levy until the level of 2½ percent of fair market value is reached, combined with the even more drastic cut in motor vehicle excise revenue, lowered Boston's tax levy by eighteen percent in FY82, with a further fifteen percent cut scheduled for FY83, and no commensurate compensating alternative revenue source in sight. As a consequence, the role of municipal government has already been severely damaged. With non-reducible fixed charges, assessments, and School Department funding making up 48 percent of the FY82 budget, public services bore the brunt of the rollback. See Table 2-23. Budgeted expenditures for public safety, community services, and social services suffered a 27 percent reduction from FY81 to FY82; in dollars of constant value, this signified a cut of one-third. The number of municipal employees,

including police, fire and school, were reduced by 22 percent, bringing municipal employment to a level lower than that at any time in the last 35 years. The City has virtually eliminated its capital improvements program. With "2½" shrinking Boston's principal revenue measure, and in the absence of an assured alternative revenue source, long-term bonds are no longer saleable in the municipal bond market. The impact of "2½" on Boston is far greater than that affecting the State's other cities and towns, suggesting the need for special remedial measures. In FY82, Boston absorbed eighteen percent of the state-wide reduction in property tax levies, and, in FY83 is scheduled to carry out 38 percent of the second stage of levy cutback. The public sector role of Boston municipal government, as it has emerged in modern times, is under seige.

Massachusetts' cities and towns property tax levy of $3.3 billion in FY81 represented a greater share of state and local taxes raised than that for any other state, reflecting imbalance in tax structure and over-reliance on the property tax. In FY82, $486 million of this was rolled back, including $88 million in Boston. For FY83, a further state-wide reduction of $174 million is scheduled, including $66 million in Boston. New state revenue sharing for Boston, of $39 million for FY82, and the Governor's proposal of $44 million for FY83, would compensate for barely half the "2½" loss in the first two years.

The impact of reduced revenue on Boston's FY82 budget and level of public services has been severe. The impact has been compounded by (1) limited flexibility in constraining fixed costs for debt service, pensions, and state assessments, which have risen, and (2) unusually large outlays for court-ordered tax abatement payments (see Chapter 4). As a result, the FY82 budgeted reduction in Boston municipal

expenditures of ten percent, signifies a decline in public services and capital outlays of thirteen percent.

The number of municipal workers has been drastically cut back. Overall, the number of employees of Boston City Government fell from 20,394 in 1981, to 16,574 in 1982, a decline of 3,820. Excluding the School Department, where the City's control is limited, and the personnel attrition was less, Boston municipal employees were reduced in number from 12,863 in 1981 to 10,078 in 1982, representing a loss of almost one-fourth. These cold statistics translate into an unprecedented trauma for Boston in terms of laid-off policemen, firemen, and school teachers, unfilled potholes, and closed police stations, fire stations, and recreation facilities, and a dwindling capability for responding to crime, fire disaster and the elementary needs of a proud City and citizenry.

Other Massachusetts cities and towns have also been seriously impacted by "2½". A report issued by the Massachusetts Municipal Association in January 1982, based on a survey of 75 communities (not including Boston), was "designed to provide....a comprehensive study of what has happened to cities and towns in the first year of Proposition 2½....This report indicates that the effects....have been profound. The patient has survived, but remains in serious condtion."[7] The survey covered "severe impact communities", which were the poorer and more populous, and "moderate impact communities". The survey found that the municipal work force had shrunk by 30,400, or 11.8 percent. Police and fire took a small proportion of the cuts, schools were reduced equivalent to their proportionate share, and other departments took greater cuts. The greatest percentage cuts in budget appropriations

were in recreation, libraries, and public works. Municipal bond issues for capital construction and equipment fell from $263 million, in 1980, to $9 million, in 1981.

Another study by two scholars, Katherine L. Bradbury and Helen F. Ladd, examines why property tax burdens in Massachusetts are high, and the first year state-wide effects of Proposition 2½.[8] A central finding is that most of Massachusetts' above-average property tax burden reflects above-average reliance on local property taxes to finance local spending rather than high spending levels....local direct general expenditures per capita in Massachusetts are less than one percent above the U.S. average....small per capita tax bases contribute more than high spending levels to the high tax rates of the largest cities and towns....In order to spend about 27 percent more than the smallest cities and towns, the largest communities taxed themselves about twice as heavily. This seems to run counter to the popular impression....that excessive spending was the basic cause of high property tax rates." The study found that "the spending impacts (of 2½) are large...." and that an indication of the cuts required, best measured by revenue losses as a fraction of non-fixed (operating) expenditures, shows that the group of largest cities and towns all had losses of more than ten percent and an average of thirteen percent, before state aid, and six percent after state aid. "Cities and towns with smaller per capita tax bases would be forced to provide fewer or lower quality services." The report concludes that "enactment of substantial new state aid is an appropriate response to the revenue losses of local governments because....high property taxes....were mostly attributable to escessive reliance on property taxes as a local revenue source."

Footnotes to Volume I, Chapter 2

1 Boston Redevelopment Authority, A Decade of Development in Boston, 1979.
Ibid: Planning for Boston's Next Decade of Development, (Draft Report, 1980).

2 Russell Adams, Boston's Money Tree, Boston, 1977.

3 Boston Redevelopment Authority, City of Boston Population Projections, February 1982.

4 Federal Reserve Bank of Boston, Economic Indicators, "New England Economic Watch, Employment 1979-81," March 1982.

5 Seymour E. Harris, The Economies of New England, Case Study of An Older Area, Harvard University Press, 1952.

6 Collector-Treasurer, City of Boston, Official Statement of the City of Boston, Massachusetts Relating to $30,000,000 General Obligation, Temporary Loan Notes in Anticipation of Revenue, October 20, 1980.

7 Massachusetts Municipal Association, Report on the Impact of Proposition 2½, January 1982.

8 Federal Reserve Bank of Boston, New England Economic Review, January/February 1982, Katherine L. Bradbury and Helen F. Ladd, "Proposition 2½; Initial Impacts, Part I"; Ibid. March/April 1982,"Proposition 2½: Initial Impacts, Part II".

1. SUMMARY

Part One - The Study Effort

The Tax Policy Analysis and Planning Effort

The present phase of Boston's tax policy analysis and planning effort was begun in September 1976, funded, in part, by a research grant from the Office of Policy Development and Research of the U.S. Department of Housing and Urban Development. It was designed to provide a broader and deeper information base, as well as new and improved analytic tools for tax policy analysis and planning, with a goal of helping to spur the tax modernization and reform process. Tax modernization and reform were needed to assure a flow of revenue, appropriately levied, to meet the requirements for a broadened range of public services and an ambitious capital program for Boston's economic revival. The study design also provided for roles of a Peer Group, an Academic Advisory Committee, a City Policy Committee, and a Project Monitor who would document the progress and evolution of the study effort. And, at a later date, an independent scholar reviewed the study effort experience.

A retrospective view of the 1976-81 study effort must recognize that, while some of the key work program goals were achieved and useful and even important contributions to the fiscal condition of the City were made, the objective of broadening Boston's revenue base is yet to be attained. This report attempts to document the tax policy analysis and planning effort in the context of the role of Boston's fiscal strategy to advance the City's economic development.

A New Base of Tax Policy Analysis and Information

A new data base more fully identified Boston's fiscal condition, and its relation with that of the state. This includes new data and analysis of the over-reliance on the property tax, the inadequacy of the revenue structure, and the long-term stability of municipal spending and employment levels in Boston. The new analyses of expenditure and employment trends suggest that Boston has not been on a spending spree.

The Development and Sharpening of Analytic Techniques

The over-reliance on the property tax, flowing from the deficiencies in the state and local tax structure, and the resulting distortions and dispersion in property tax rates, inexorably led to a court-ordered mandate for equalization, and an effort to mitigate its effect through classification, as noted earlier. It became important to develop analytic techniques for measuring and projecting each of these phenomena, so that they would be most clearly understood, and not only for Boston, but also for each of the other 350 cities and towns of Massachusetts, in order to marshall legislative constituencies. And this was done very handsomely with the development of a number of noteworthy innovative analytic techniques.

New Measures of Market Value Trends

Measures of trends in the market value of residential property were generated through the construction of a unique linked-pairs index which was used to monitor the change in market value of the same dwellings over time. A by-product of this work was the analysis of the dispersion of effective property tax rates, by type of property, and by neighborhood, over time. These analyses were complemented by estimates of the market value of non-residential property utilizing surveys of the

operating cash flow and the application of income capitalization analysis. These measures of market value were then related to assessed value to provide estimates of the effective tax rate, by type of property. The analyses documented the widening dispersion of effective tax rates with heavier burdens on poorer neighborhoods, older commercial property and multi-family housing.

Projecting the Impact of Equalization on Property Value and Tax Burden Shifts

The impact of equalization on property value and the shift in tax burden, by property type and neighborhood, was an early and major concern of the tax policy analysis and planning effort, and methodology for projecting this impact became a central focus. Revaluation would raise property assessments differentially and this would change property values. The effect would be iterative; as assessments and effective tax levies rose, values would decline, followed by a fall in levy and a rise in value, in a bouncing ping-pong ball fashion. The projection of the direct and indirect effect of revaluation on property value and the resulting tax burden shifts was perfected through the development of a computer use program called MASSTAX, drawing on skills in information marshalling, tax policy analysis, econometrics and computer programming. The key to the technique centered on the method of tax capitalization. The technique was successfully applied for each of the 351 cities and towns of Massachusetts, yielding comparative analyses of the direct and indirect effects of revaluation on property value, by type, and the shift in tax burdens. The analytic projections represented an improvement over earlier pioneering work by Professors Daniel Holland, Oliver Oldman and Robert Weinberg and graduate student, Ken Cooper. The projected increase in tax burdens on owner-occupied residential property

was highlighted, and gave rise to widespread concern throughout the Commonwealth over the impact of assessment revaluation on the viability of residential neighborhoods. In the case of Boston, the projections of shift in tax burden were generated in exhaustive detail by type of property and by neighborhood, and resulted in general alarm over the prospective shift of tax burden from commercial property to residential property.

Projecting How Classification Could Work

The concern with the impact of revaluation in shifting tax burdens from commercial to residential property led to interest in tax classification, the legalization of the differential taxation of property by class. The MASSTAX computer program was used to project equalization and classification for Boston and each of the other 350 cities and towns of Massachusetts to illustrate how classification, by systematically legitimizing the widespread emergence of differential taxation, could moderate the tax burden shift of revaluation. This documentation, as refined by Ray Torto, who was then Tax Policy Advisor to the Mayor of Boston and later served as Commissioner of Assessing, eventually led the Massachusetts Mayors' Association, the state legislature, and, finally, in November 1978, the electorate to adopt the classification amendment to the state constitution.

Implementing Equalization

Classification, however, could not be implemented without equalization which the State Supreme Court had mandated. Following up on a proposal of Professor Oliver Oldman, Harvard Law School, to the Mayor of Boston, that revaluation might proceed in stages, by raising assessments, for those properties underassessed, up to the average

assessment rate level (assessment-market value ratio), systematic projections were made, in 1978, of the effects of such a proposal in shifting tax burdens, narrowing the dispersion of effective tax rates, by type of property, by neighborhood, and raising revenue yield. This strategy was the one actually implemented in October 1980. Though the main task of revaluing Boston's 100,000 parcels of taxable property was proceeding systematically, it was still far from completion when the decision was made to raise assessments as part of the need to raise the tax levy by eighteen percent. This was accomplished by dividing the City into 130 sub-neighborhood areas and the use of average assessment-sales ratios by property type, by sub-area, as a guide for raising assessments for all underassessed parcels. As a consequence, Boston achieved roughly one-third of its revaluation goal in 1980, auguring well for the target of completing the equalization process by 1983.

Part Two - The Fiscal and Development Question

Boston's Fiscal Strategy and Dynamo Role

"Fiscal Policy and Tax Constraint: After the Property Tax", the final report of the "Tax Policy Analysis and Planning Study Effort, 1976-81", takes place in the context of the transformation of the City's economy, its leadership role in the metro area and the New England region, and the fiscal strategy that helped make it all happen.

Boston's fiscal strategy, by spurring modernization of the economic base through public infrastructure investment and planning and a broader range of innovative services, is contributing importantly to the renaissance of the New England region. Boston's dynamo role has had a major part in New England's record performance in employment and personal income growth in the course of the current national recession, in comparison with the nation as a whole and most other states and regions. Boston's jobs, led by broad growth in services activities and new advances in high technology industry, make up one-third of employment in the metro area, which, in turn, accounts for one-third of the total for New England. Boston's economic development and its broad regional role could be set back if Proposition 2½ is not soon complemented by compensating revenues in a broad process of state and local tax reform.

Landmark Achievements of Boston's Fiscal Strategy

The advent of 2½ comes on the heels of landmark achievements of Boston's fiscal strategy, in the last five years. The adoption of the classification amendment in 1978, legalizing the differential taxation of property by class, will mitigate the impact of revaluation on resident taxpayers. The broad advance in state revenue sharing, and

Table 2-1

CITY PUBLIC INVESTMENT SHARE IN
BOSTON MUNICIPAL EXPENDITURES
(Millions of Dollars)

Year	Boston Municipal Expenditures		Capital Outlays As a Percent of Total
	Total	Capital Outlays	
1960	228	8	3.5
1961	237	6	2.5
1962	247	10	4.0
1963	264	15	5.7
1964	283	14	4.9
1965	304	14	4.6
1966	337	20	5.9
1967	381	23	6.0
1968	409	30	7.3
1969	363	32	8.8
1970	451	58	12.9
1971	541	77	14.2
1972*	576	73	12.7
1974*	849	71	8.4
?1975	708	90	12.7
?1976	841	108	12.8
?1977	827	59	7.1
?1978	863	45	5.2
?1979	936	47	5.0
?1980	969	51	5.3
?1981	1,002	28	2.8
?1982	901	19	2.1

Covers 18-month period of transition from calendar to fiscal year.

ource: City of Boston and County of Suffolk, Auditing Department, Annual Reports, 1960-79, and from Auditing Department Records (Cooper and Lybrand Interim Report) for preliminary 1980 expenditures. Compiled by BRA Research Department. 1981 based on budget expenditures, and 1982 derived from budget appropriations information.

Table 2-2

CITY OF BOSTON CAPITAL EXPENDITURES[1]
BY FUNCTION

($ million)

	Public[2] Schools	Urban[3] Renewal	Municipal Buildings	Health and Hospitals	City Streets	Water & Sewer	All[4] Other	Total
1962-66	$ 7.7	$ 3.8	$37.4	$ 6.5	$12.9	$ 4.1	$ 5.2	$ 77.2
1967/72	98.4	43.3	34.9	33.7	25.0	8.4	57.8	301.7
1974-77[5]	155.0	51.2	25.3	40.7	23.4	7.8	34.3	337.9
TOTAL	$261.1	$98.3	$97.6	$80.9	$61.3	$20.3	$97.3	$716.8

1. Outlays principally from the city's capital improvement fund; total also includes $18.3 million from general revenues.
2. Approximately 40 percent of these expenditures were eligible for reimbursement from the state.
3. Approximately 35 percent of these expenditures are eligible for reimbursement from the state.
4. Includes expenditures for parks and recreation, libraries, parking facilities, and various public works projects.
5. Due to a change in the city's fiscal year, 1974 includes expenditures for the 18 month period from January 1, 1973 through June 30, 1974.

Source: Unpublished data from the City of Boston, collected by the Urban Institute.

(From The Urban Institute, The Future of Boston's Capital Plant, Washington, D.C. April 1981)

Table 2-3

PUBLIC CAPITAL EXPENDITURES IN BOSTON BY FINANCING SOURCE, 1962-1977[1]

(in millions)

Source	Public Schools	Urban Renewal	Water and Sewer	Highways and Streets	Mass[2] Transit	Airport and Port	Municipal Buildings	Health and Hospitals	Misc.	Total
City of Boston	$192	$ 57.6	$ 50.8	$ 61			$84.4	$80.9	$ 90.4	$617.2
Regional and Local Authorities			30	109	$137	$395			15.5	686.5
Commonwealth of Massachusetts	69	11.2	4.2	74						158.4
Federal Government		270	135.5	97	115	24		7.3	35	683.6
TOTAL	$261	$338.8	$220.3	$341	$252	$419	$84.4	$88.2	$140.9	$2145.7

1. In some cases financial data was only available from 1964 to 1977.
2. Does not include $91 million for rolling stock purchases between 1964 and 1977.

Sources: Figures from local records of the City of Boston and County of Suffolk, the Metropolitan District Commission, the Massachusetts Bay Transportation Authority, the Massachusetts Port Authority, the Massachusetts Turnpike Authority; and state and federal government aid to each of these sources.

(From The Urban Institute, The Future of Boston's Capital Plant, April 1981)

Table 2-4

CITY OF BOSTON NET FUNDED DEBT
(Millions of Current Dollars)

Year	Net Funded Debt
1930	$110
1931	119
1932	127
1933	136
1934	134
1935	135
1936	133
1937	130
1938	133
1939	131
1940	128
1941	124
1942	119
1943	110
1944	102
1945	95
1946	93
1947	96
1948	99
1949	75
1950	75
1951	71
1952	69
1953	65
1954	64
1955	61
1956	59
1957	71
1958	112
1959	103
1960	101
1961	97
1962	95
1963	95
1964	109
1965	111
1966	118
1967	142
1968	158
1969	176
1970	211
1971	264
1972	326
1973	-
1974	365
1975	377
1976	431
1977	472
1978	500
1979	527
1980	545

Source: City of Boston Auditing Department annual reports.

Table 2-5

COMPOSITION OF EMPLOYMENT IN BOSTON
(In Percent)

	1950	1981
Manufacturing	19	9
Services (Transportation, Communication, and Public Utilities, Finance and Insurance, Business and Professional Services, Higher Education and Medicine)	32	53
Trade	27	16
Government	15	18
Construction and Other	7	4
Total	100	100

Source: U.S. Bureau of Economic Analysis, Mass. Dept. of Employment Security, Boston Redevelopment Authority.

Table 2-6

EMPLOYMENT IN BOSTON (SUFFOLK COUNTY) BY MAJOR INDUSTRY

	1976	1981*
Manufacturing	56,492	53,045
Transportation, Communications and Public Utilities	35,114	39,258
Trade	93,099	91,295
Wholesale	32,863	29,992
Retail	60,236	61,303
Finance, Insurance, Real Estate	62,858	72,933
Services	163,851	193,283
Proprietors	10,989	11,573
Construction and Other	10,407	11,432
Government	88,592	102,689
Total	521,402	575,508

* 1981 estimated on the basis of change over the 12 month period, first half 1980 to first half 1981, as reported by the Massachusetts Division of Employment Security.

Source: Boston Redevelopment Authority Research Department, based on U.S. Bureau of Economic Analysis Employment Series for Suffolk County. Boston accounts for an estimated 96 percent of Suffolk County Employment.

Table 2-7

OUTLOOK FOR BOSTON, 1980-90;
PROJECTIONS OF EMPLOYMENT

stry	1980*	1990	Absolute Employment Change 1980-1990	Percent Of Total Change 1980-1990	Percent Change By Industry
culture/Mining	544	589	+ 45	-*	+ 8.3%
truction	9,168	11,196	+ 2,028	2.5%	+ 22.1
facturing	54,908	63,989	+ 9,081	11.3	+ 16.5
Durables	20,827	25,893	+ 5,066	6.3	+ 24.3
Non-Durables	34,081	38,096	+ 4,015	5.0	+ 11.8
sportation, munications, & lic Utilities	33,632	36,900	+ 3,268	4.1	+ 9.7
e	87,166	100,498	+13,332	16.7	+ 15.3
Wholesale	27,931	32,378	+ 4,447	5.6	+ 15.9
Retail	59,235	68,120	+ 8,885	11.1	+ 15.0
nce, Insurance & l Estate	66,130	76,949	+10,819	13.5	+ 16.2
ices	183,388	223,214	+39,826	49.8	+ 21.7
Business	45,363	62,034	+16,671	20.8	+ 36.8
Professional	138,025	161,180	+23,155	28.9	+ 16.8
Total	434,890	513,288	+78,352	97.9	+ 18.0
rnment	93,527	95,128	+ 1,601	2.0	+ 1.7
rietors	11,537	11,584	+ 47	0.1	+ 0.4
L	540,000	620,000	+80,000	100.0%	+ 14.8%

ss than 0.1%.

urce: Boston Redevelopment Authority Research Department, based on U.S. Department of Labor, Bureau of Labor Statistics, "Industry Output and Employment: BLS Projections to 1990," Monthly Labor Review. April 1979. Boston growth projected at about sixty percent of national base-line scenario and distributed, by industry, according to local trends, 1975-1980.

Table 2-8

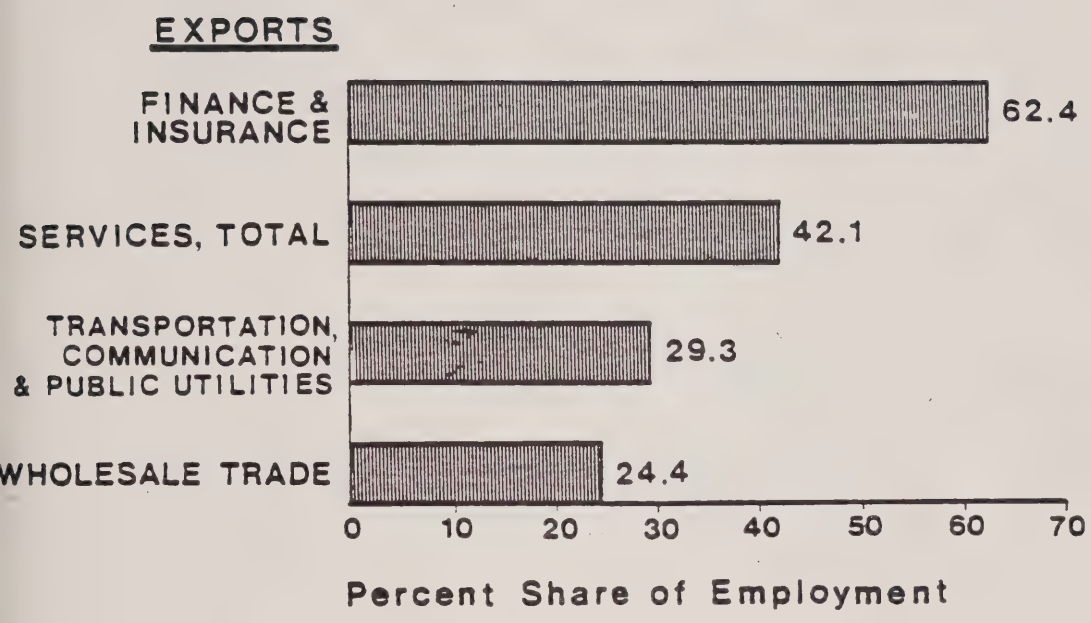
PRIVATE DEVELOPMENT UNDERWAY AND PLANNED IN BOSTON

Type	Cost (Millions)	Physical Unit of Measure	Construction Jobs (Man-Years)	Permanent Jobs
Office	$ 998	10,537,000 sq. ft	23,678	47,718
Hotels	456	4,922 rooms	10,680	2,885
Retail	109	1,213,000 sq. ft.	2,465	3,110
Institutional	123	-	-	-
Housing	309	5,709 dwelling units	8,118	-
Other	239	-	5,750	3,860
TOTAL	$2,234		50,691	57,573

Source: Boston Redevelopment Authority, A Special Report on Fiscal Productivity, June 1981.

Chart 2-1

EXPORT ROLE OF BOSTON'S JOBS



Source: U.S. B.E.A. and B.R.A. Research Dept.

Table 2-9

BOSTON'S EMPLOYMENT AND POPULATION ROLE IN RELATION TO THAT OF THE METRO AREA AND NEW ENGLAND, 1980

	Employment			
	Broad Range Of Services	Manufacturing	Total	Population
	(Thousands)			
City of Boston*	288	54	549	563
Boston Metro Area**	631	299	1,563	2,760
New England Region	1,864	1,521	6,114	12,325
	(In Percent)			
City as Share of Metro Area	46	18	35	20
Metro Area as Share of New England Region	34	20	26	22

* Calculated at 96 percent of Suffolk County.
** Standard Metropolitan Statistical Area.

Sources: U.S. Bureau of the Census, U.S. Bureau of Economic Analysis, Massachusetts Department of Employment Security, Boston Redevelopment Authority.

Table 2-10

DOMINANCE OF SERVICES IN NEW ENGLAND EMPLOYMENT GROWTH, 1970-80

	1970	1980	1970-80 Change	
	(Employment in Thousands)		Number	Percent
Total	5,228	6,114	+ 886	+ 17
Broad Range of Services	1,368	1,864	+ 496	+ 36
Transportation, Communications, & Public Utilities	225	238	+ 13	+ 6
Finance, Insurance, & Real Estate	251	330	+ 79	+ 31
Services	892	1,296	+ 404	+ 45
Manufacturing	1,454	1,521	+ 67	+ 5
Government	835	905	+ 70	+ 8
Other	1,571	1,824	+ 253	+ 16

Sources: U.S. Bureau of Economic Analysis and U.S. Bureau of Labor Statistics

Table 2-11

COMPARISON OF NEW ENGLAND EMPLOYMENT GROWTH
WITH THAT OF THE UNITED STATES
IN THE ECONOMIC RECOVERY PERIOD, 1976-80

	1976	1980	1976-80 Change	
	(Employment in Thousands)		Number	Percent
United States	94,737	106,453	+ 11,716	+ 12
Broad Range of Services	25,217	29,912	+ 4,695	+ 19
Manufacturing	19,023	20,380	+ 1,357	+ 7
Government	17,688	18,430	+ 742	+ 4
Other (Including Trade & Construction)	32,809	37,731	+ 4,922	+ 15
New England	5,403	6,114	+ 711	+ 13
Broad Range of Services	1,557	1,864	+ 307	+ 20
Manufacturing	1,354	1,521	+ 167	+ 12
Government	881	905	+ 24	+ 3
Other (Including Trade & Construction)	1,611	1,824	+ 213	+ 13

Sources: U.S. Bureau of Economic Analysis and U.S. Bureau of Labor Statistics

Table 2-12

UNEMPLOYMENT RATES

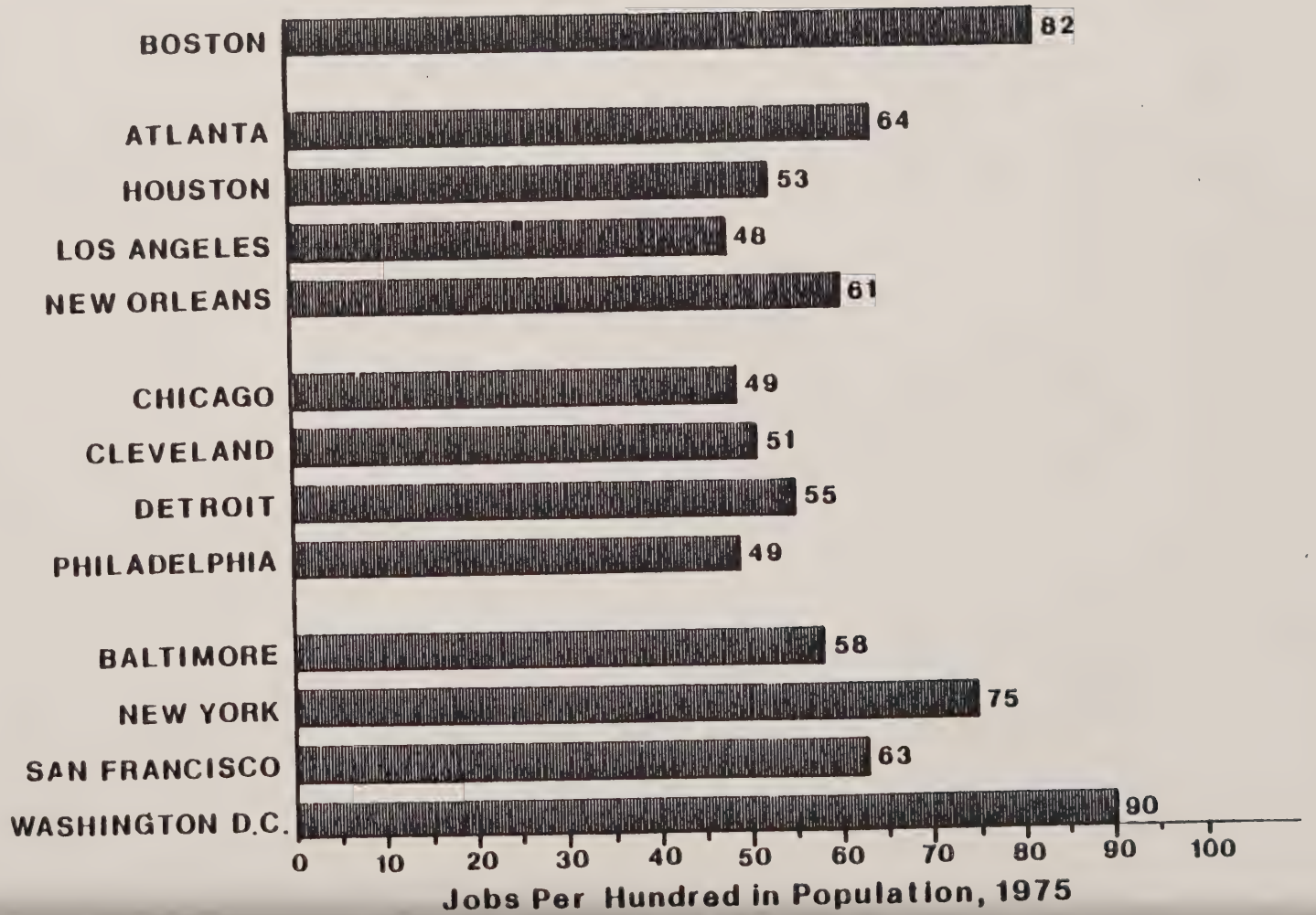
	1970	1975	1976	1977	1978	1979	1980	1980	1981
Boston	4.3%	12.8%	11.1%	9.5%	7.2%	6.5%	6.1%	5.7%	6.6%
Boston SMSA	3.7	10.5	9.1	7.8	5.9	5.2	5.2	4.7	5.4
Massachusetts	4.6	11.2	9.5	8.1	6.1	5.5	5.6	5.3	6.2
New England	5.3	10.3	9.0	7.6	5.7	5.4	6.0	5.7	6.5
United States	4.9	8.5	7.7	7.0	6.0	5.8	7.1	6.6	7.7

Sources: U.S. Bureau of Labor Statistics; Massachusetts Division of Employment Security.

Chart 2-2

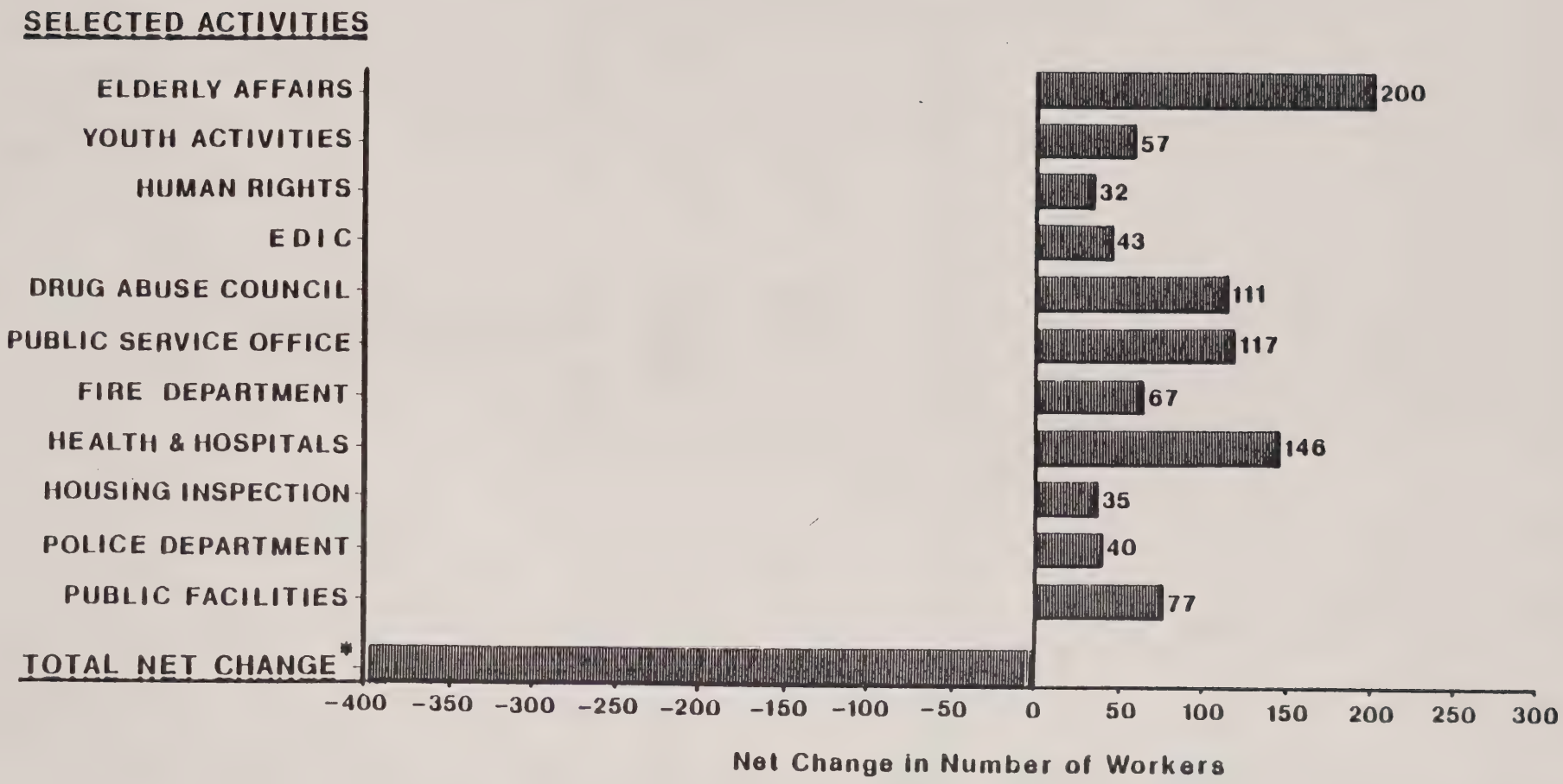
BOSTON AS DYNAMO

COMPARISONS OF JOB-POPULATION RATIOS, BOSTON AND OTHER MAJOR CITIES



BROADENING BOSTON'S RANGE OF PUBLIC SERVICES–

CHANGE IN THE NUMBER OF MUNICIPAL WORKERS 1967–1978



*Includes 1,783 CETA Workers in 1978

Source: City Auditing Dept., Boston Municipal Research Bureau, April 1979

Table 2-13

CITY OF BOSTON EMPLOYMENT BY DEPARTMENT
1967-1978

	1967[1] (2/1)	1978[1] (12/26)	CETA Workers 1978 (12/15)	Total 1978 (Dec.)	Increase 1967-78	Decrease 1967-78	No Change 1967-78
Mayor's Office	16	34	13	47	+31		
Animal Control Commission							
Board of Rent Appeal		34	6	40	+40		
Civil Defense Activities	14					-14	
Bond Allotment Plan	5	2		2			-3
Office of Housing			41	41	+41		
Commission on Affairs of the Elderly		95	105	200	+200		
Public Celebrations Department							
Model Cities Program							
Model Neighborhood Board							
Neighborhood Improvement	23					-23	
Conservation Commission							
Youth Activities Bureau	35	92		92	+57		
Human Task Force (Human Rights)		24	8	32	+32		
Economic Development and Industrial Comm.		15	28	43	+43		
Council on Drug Abuse		6	105	111	+111		
Safe Streets Act							
Consumer Activities		9	26	35	+35		
Cultural Activities		4	32	36	+36		
Office of the Bicentennial							
Office of Development	3					-3	
Office of Public Service		110	7	117	+117		
City Council	9	9		9			+0
City Council Officers and Employees	18	28		28	+10		
Administrative Services Department							
Director's Office	8	11		11	+3		
Manpower Planning							
Personnel and Budget Division	30	72	1	73	+43		
Public Service Careers							

	1967[1] (2/1)	1978[1] (12/26)	CETA Workers 1978 (12/15)	Total 1978 (Dec.)	Increase 1967-78	Decrease 1967-78	No Change 1967-78
Purchasing Division	28	27		27		-1	
Printing Section	85	67		67		-18	
Complaints Division	2					-2	
Data Processing	21	45	1	46	+25		
Air Pollution Commission							
Assessing Department	105	83	23	106	+1		
Auditing Department	60	56	1	57		-3	
Auditorium Commission	7	9	2	11	+4		
Boston Arena							
Boston Retirement Board	22	31	1	32	+10		
Boston Traffic Department	148	169	25	194	+46		
Building Department	148	122	4	126		-22	
Board of Appeal	9	8		8		-1	
Board of Examiners	5	5		5			+0
City Clerk Department	15	14		14		-1	
Registry Division	36	32		32		-4	
City Record, Publication of	1	2		2	+1		
Conservation Commission		4	1	5	+5		
Election Department	42	62	1	63	+21		
Emergency Employment Act-Administration							
Finance Commission	7	6		6		-1	
Fire Department	2,058	2,114	11	2,125	+67		
Government Center	1					-1	
Community Health Services	273					-273	
Hospital Department							
Hospital Division	3,459	3,200	249	3,449		-10	
Sanatorium Division	389	378	2	380		-9	
Long Island Hospital Division	381	512	15	527	+146		
Housing Inspection Department							
Housing Inspection Division	77	91	21	112	+35		
Weights and Measures Division	18	15		15		-3	
Law Department	58	50	3	53		-5	
Workmen's Compensation Service	6	4		4		-2	

Table 2-13 (Cont'd)

	1967 (2/1) [1]	1978 (12/26) [1]	CETA Workers 1978 (12/15)	Total 1978 (Dec.)	Increase 1967-78	Decrease 1967-78	No Change 1967-78
Library Department	780	526		526		-254	
Licensing Board	13	14		14	+1		
Parks and Recreation Department	568	384	203	587	+19		
Cemetery Division	55					-55	
Police Department	2,849	2,673	216	2,889	+40		
Public Facilities Department	6	78	5	83	+77		
Public Works Department	1,385	658	341	999		-386	
Central Office	41						
Automotive Division	123						
Bridge Service	64						
Highway Service	532		86				
Sanitary Service	231		22				
Sewer Service	104		3				
Survey Division	54						
Water Division	236		24				
Office of Federal Relations		3		3	+3		
Office of Fiscal Affairs		11	3	14	+14		
Office of Property Equalization		11	1	12	+12		
Real Property Department							
Real Property Division	15	16	123	139	+124		
Buildings Division	204	113		113		-91	
Market Division	5					-5	
County Buildings		17		17	+17		
Treasury Department							
Collecting Division	75	50	3	53		-22	
Treasury Division	29	24	15	39	+10		
Veterans' Service Department	73	47	4	51		-22	
Veterans' Graves Registration	3	3		3			+0
Welfare Department	891					-891	
Licensing Division		4		4	+4		
Hospital and Insurance Plan		7		7	+7		
Community Services Administration		3		3	+3		

	1967 (2/1) [1]	1978 (12/26) [1]	CETA Workers 1978 (12/15)	Total 1978 (Dec.)	Increase 1967-78	Decrease 1967-78	No Change 1967-78
Community School		96	137	233	+233		
Criminal Justice		6		6	+6		
SUBTOTAL	14,573	12,395	1,783	14,178	+1,730	-2,125	
School Building Department	67	(66)	1977				
School Department	6,782	8,328	(Oct.)				
TOTAL	21,422	20,789					
EEPA			725				
BRA		135					

1. Number of permanent, temporary, emergency, and part-time employees on the City of Boston Payroll as of the given dates -not including federally funded employees.

Source: 1967 from City of Boston Auditing Department, Annual Report for the Eighteen Months Ended June 30, 1974; 1978 and CETA from the Boston Municipal Research Bureau, April 1979.

Table 2-14

STATE AID AND BOSTON'S SHARE, 1975-83

Fiscal Year	State Aid: Boston's Share (Millions of Dollars)	State Aid: All Cities And Towns (Millions of Dollars)	Boston As a Percent Of Total
1975	$ 98	$1,160	8.4%
1976	137	1,279	10.7
1977	133	1,303	10.2
1978	139	1,468	9.5
1979	197	1,687	11.7
1980	182	2,009	9.1
1981	187	2,016	9.3
1982	218	2,281	9.6
1983*	262	2,447	10.7

Sources: Boston - City of Boston and County of Suffolk, Auditing Department, Reports
Massachusetts - Executive Office for Administration and Finance, Controller's Division, Financial Reports

1983* - Projected, based on reported agreement of Governor and State legislative leaders, April 27, 1982, for a State aid increase of $166 million, with $44 million to Boston, to cover two-thirds of scheduled FY83 loss under "2½".

Table 2-15

MUNICIPAL EXPENDITURES IN THE CITY OF BOSTON,
1967-1980
(In millions)

Year	(1) Total Expenditures (Current $)	(2) Implicit Price Deflator (FY1981=100)	(3) Total Expenditures (FY1981 $)
1967	381	37.6	1,013
1968	409	39.6	1,035
1969	363	42.6	877
1970	451	46.0	979
1971	541	49.2	1,098
1972	576	51.9	1,112
1974*	(849)	57.3	(1,486)
FY1975	708	63.8	1,112
FY1976	841	68.9	1,219
FY1977	827	73.6	1,125
FY1978	863	78.7	1,096
FY1979	936	84.8	1,104
FY1980	969	92.1	1,056
FY1981	1,002	100.0	1,002
FY1982	901	107.0	838

* Covers 18-month period of transition from calendar to fiscal year practice.

Source: Column 1 Total Expenditures from City of Boston and County of Suffolk, Auditing Department, Annual Reports, 1960-1979, and from Auditing Department Records (Cooper and Lybrand Interim Report) for preliminary 1980 expenditures. FY1981 is based on budgeted expenditures, and FY1982 is based on budget appropriations information. Compiled by BRA Research Department, Lisa Flanagan, December 1980 and Gregory Perkins, March 1981.

Column 2 Implicit Price Deflators series of state and local government purchases of goods and services from Economic Report of the President, 1982, Table B-3. Implicit price deflators used for 1974-1981 are interpolated as mid-year values in order to correspond to fiscal years.

Column 3 Total Expenditures in FY1981 dollars is the product of Columns 1 and 2.

Table 2-16

BOSTON CITY GOVERNMENT EMPLOYMENT
1947-1980

Year	Total	Municipal	School	School As a % Of Total
1947	19,234	13,315	5,919	31
1948	20,507	14,732	5,775	28
1949	21,848	16,119	5,729	26
1950	22,011	16,210	5,801	26
1951	21,683	15,816	5,867	27
1952	22,385	16,409	5,976	27
1953	21,863	16,315	5,548	25
1954	21,632	16,095	5,537	26
1955	21,554	15,777	5,777	27
1956	21,757	15,943	5,814	27
1957	21,488	15,826	5,662	26
1958	21,455	15,821	5,634	26
1959	21,354	15,835	5,519	26
1960	21,071	15,535	5,536	26
1961	20,071	14,660	5,411	27
1962	19,890	14,404	5,486	28
1963	19,828	14,296	5,532	28
1964	19,919	14,092	5,827	29
1965	20,217	14,080	6,137	30
1966	20,503	14,101	6,402	31
1967	21,424	14,575	6,849	32
1968	22,089	14,828	7,261	33
1969	21,759	14,190	7,569	35
1970	23,262	15,065	8,197	35
1971	24,368	16,211	8,157	33
1972	24,286	16,058	8,228	34
1973	23,938	15,544	8,394	35
1974	21,931	14,157	7,774	35
1975	22,300	14,324	7,976	36
1976	21,919	14,106	7,813	36
1977	21,522	13,468	8,054	37
1978	20,379	12,151	8,228	40
1979	20,989	12,972	8,017	38
1980	20,873	12,938	7,935	38
1981	20,394	12,863	7,531	37
1982	16,574	10,078	6,496	39

Source: City of Boston Auditing Department, Annual Reports, 1947-1979 and Boston Municipal Research Bureau.

Compiled by BRA Research Department, 1980-1981.

Note: The above figures include permanent, temporary, emergency, and part-t employees whose salaries are funded from federal or special source For 1980, 1981, and 1982, municipal employment is as of January 1 school employment is the annual average for the fiscal year.

Table 2-17

BOSTON MUNICIPAL EXPENDITURES;
COMPARISON WITH BOSTON GROSS CITY PRODUCT
(Millions of Dollars)

	(1) Boston Municipal Expenditures	(2)	(3)	(4)
		Boston Gross City Product		
	Dollars of Constant Value at FY1981 Prices	Current Year Dollars	Dollars of Constant Value at FY1981 Prices	Municipal Expenditures As a Percent Of Gross City Product
1967	$1,013	$5,540	$13,046	7.8
1972	1,112	7,637	14,164	7.8
1980	1,056	13,632	14,205	7.4

Sources: Column 1 - See Table 2-15.

Column 2 - Gross Product is the total value of goods and services produced within an area, or formally defined as "the aggregate earnings of labor and property....less the intermediate products purchased." This measure provides a good view of the productive activity of the economic areas.

Boston Gross City Product is calculated utilizing the Massachusetts state gross product series, the state earned income series and the Suffolk County earned income series, adjusted for the four percent of the county economy outside of the City of Boston. Gross City Product for 1980 is estimated from the State Gross Product series according to the ratio of city to state gross product in 1978 indexed for changes in the ratios of employment in Boston and in the state in 1978, 1979 and 1980.

Column 3 - Column 2 ÷ Implicit Price Deflator from Economic Report of the President, February 1982.

Column 4 - Column 1 ÷ Column 3.

Table 2-18

U.S., MASSACHUSETTS, AND BOSTON
GOVERNMENT EXPENDITURE TRENDS
1950-81

Year	Government Expenditures U.S. (Billions of $)	Massachusetts (Millions of $)	Boston
		A. Current Dollars	
1950	$40.8	$290	$158
1967	163.7	1,372	381
1981	686.4	7,253	1,002
		B. Dollars of Constant Value At FY1981 Prices	
1950	$188.0	$1,336	$728
1967	435.4	364.9	1,013
1981	686.4	7,253	1,002
		C. Percent Change in Dollars of Constant Value	
1950-81	+265%	+443%	+38%
1950-67	+132	+173	+39
1967-81	+ 58	+ 99	- 1
		D. Deflator Index	
1950		21.7	
1967		37.6	
1981		100.0	

Sources: U.S. - Economic Report of the President, Feb. 1981

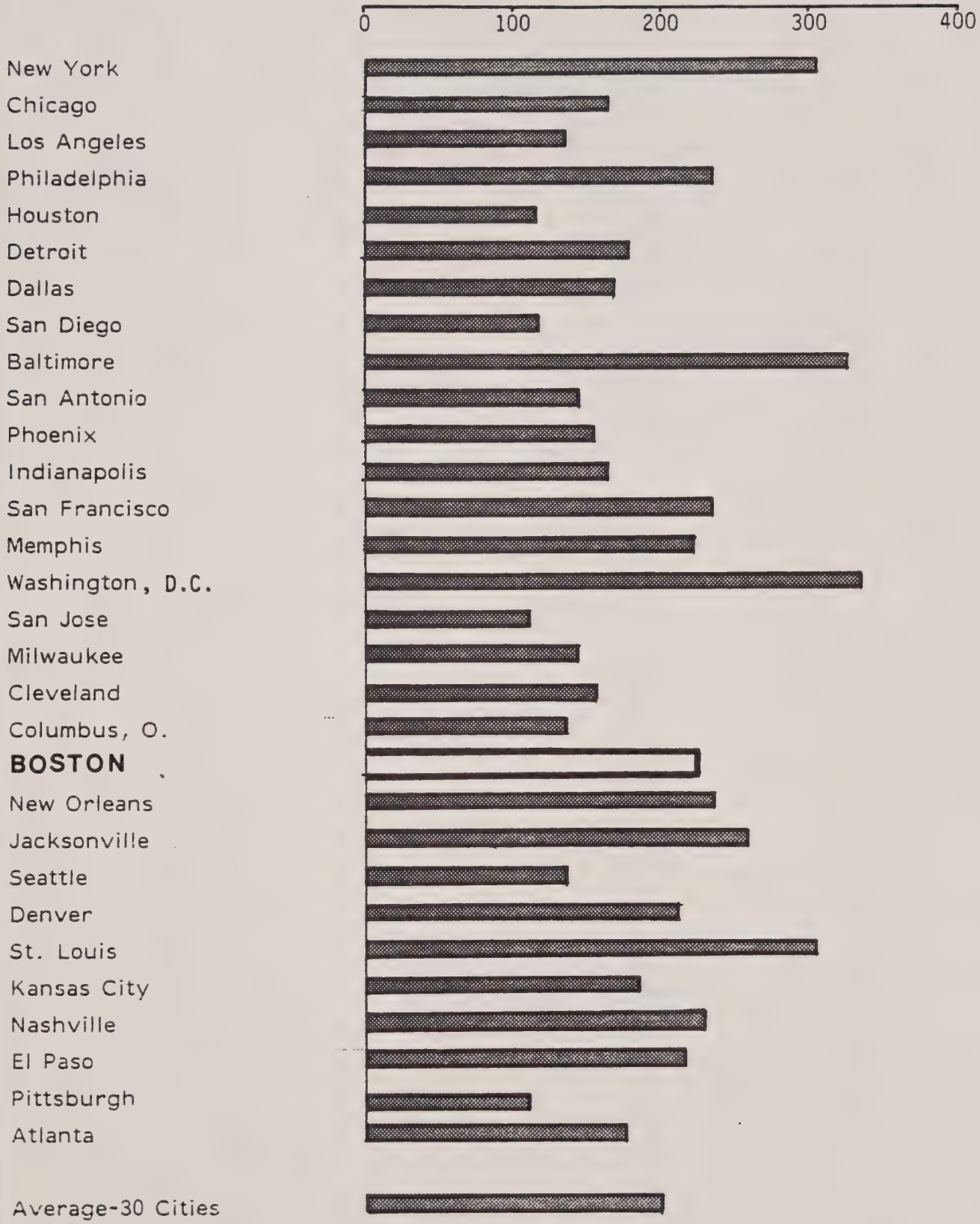
Mass. - Executive Office for Administration and Finance, Controller's Division, Financial Reports

Boston - See Table 2-1

Deflator - Economic Report of the President, op.cit. See Table 2-15.

Chart 2-4

CITY GOVERNMENT EMPLOYMENT PER 10,000 OF
COMBINED CITY POPULATION AND TOTAL EMPLOYMENT



Source: Table 4 (Note: Cities are ranked by their 1980 Population Size).

Table 2-19

PER CAPITA MUNICIPAL EXPENDITURES, AND MUNICIPAL EMPLOYMENT PER 10,000 POPULATION, FOR THE THIRTY LARGEST CITIES
Census Bureau Information
(Unadjusted for Non-Inclusion of Education for 24 Cities, As Used by Warren Brookes)

	Per Capita Municipal Expenditures, 1978-79		Municipal Employment Per 10,000 Population, 19	
	Total City Government	Education	Total City Government	Educat
1. New York	$1,639	$380	446	138
2. Chicago	426	10	155	0
3. Los Angeles	396	10	146	0
4. Philadelphia	792	21	196	0
5. Houston	349	0	101	0
6. Detroit	767	13	193	0
7. Dallas	410	0	163	0
8. San Diego	299	11	86	0
9. Baltimore	1,169	372	521	225
10. San Antonio	298	3	149	0
11. Phoenix	469	7	123	0
12. Indianapolis	501	7	160	0
13. San Francisco	1,227	30	324	0
14. Memphis	617	262	359	157
15. Washington,DC	2,692	524	644	196
16. San Jose	425	0	137	0
17. Milwaukee	292	0	66	0
18. Cleveland	613	13	186	0
19. Columbus, Ohio	522	0	130	0
20. BOSTON	1,450	413	397	144
21. New Orleans	548	1	223	0
22. Jacksonville	459	1	207	0
23. Seattle	500	7	180	0
24. Denver	870	0	263	0
25. St. Louis	624	10	269	0
26. Kansas City	585	31	149	0
27. Nashville	810	304	404	172
28. El Paso	270	0	107	0
29. Pittsburgh	425	0	130	0
30. Atlanta	854	10	208	0
AVERAGE	$860		258	
Boston in Relation to Average	+69%		+54%	

Table 2-19 (Cont'd)

Sources:

Column 1: Total city expenditures for each city divided by total city population. Municipal expenditures are from U.S. Department of Commerce, Bureau of the Census, City Government Finances in 1978-79, Table 5, September 1980. GF79 No. 4. Population is from Census Bureau estimate for 1977, as shown in Table 5.

Column 2: Total city education expenditures divided by total city population. Same sources as for Column 1.

Column 3: Total city government employment divided by total city population times 10,000. Municipal government employment is from U.S. Department of Commerce, Bureau of the Census, City Employment in 1979, Table 4, June 1980, GF79 No. 2. Population is from same source as Column 1.

Column 4: Total city education employment divided by total city population times 10,000. Same sources as for Column 3.

Compiled by BRA Research Department, July 10, 1981.

Table 2-20

CITY GOVERNMENT EMPLOYMENT (INCLUDING PUBLIC EDUCATION) IN RELATION TO CITY AND METROPOLITAN AREA POPULATION FOR THE THIRTY LARGEST CITIES, 1979*

	City Government Employment 1979	City Population 1980#	Metropolitan Area Population 1980#	City Government Emp Per 10,000 City Population	Per Metr Popu
1. New York	325,391	7,071,030	9,060,000	460	3,
2. Chicago	94,888	3,005,061	7,032,000	316	1,
3. Los Angeles	93,287	2,966,763	7,441,000	314	1,
4. Philadelphia	59,979	1,688,210	4,696,000	355	1,
5. Houston	34,750	1,594,086	2,887,000	218	1,
6. Detroit	44,024**	1,203,339	4,342,000	366	1,
7. Dallas	31,842	904,078	2,961,000	352	1,
8. San Diego	20,187	875,504	1,858,000	231	1,
9. Baltimore	41,900	786,775	2,164,000	533	1,
10. San Antonio	17,398**	785,410	1,065,000	222	1,
11. Phoenix	22,772	764,911	1,505,000	298	1,
12. Indianapolis	19,699	700,807	1,158,000	281	1,
13. San Francisco	29,515	678,974	3,221,000	435	
14. Memphis	23,999	646,356	910,000	371	2,
15. Washington,DC	44,104**	637,651	3,042,000	692	1,
16. San Jose	14,852	636,550	1,283,000	233	1,
17. Milwaukee	17,865	636,212	1,390,000	281	1,
18. Cleveland	22,559	573,822	1,893,000	393	1,
19. Columbus, Ohio	14,303	564,871	1,085,000	253	1,
20. BOSTON	24,995	562,994	2,763,000	444	
21. New Orleans	21,596	556,913	1,181,000	388	1,
22. Jacksonville	21,658**	541,269	736,000	400	2,
23. Seattle	16,781	491,897	1,600,000	341	1,
24. Denver	20,289	488,765	1,613,000	415	1,
25. St. Louis	26,466**	448,640	2,340,000	590	1,
26. Kansas City	14,686	446,562	1,320,000	351	1,
27. Nashville	17,342	439,599	829,000	394	2,
28. El Paso	13,465**	424,522	479,000	317	2,
29. Pittsburgh	12,875	423,962	2,261,000	304	
30. Atlanta	17,368	422,293	2,004,000	411	
TOTAL	1,181,835	31,967,826	75,939,000	-	
AVERAGE	39,395	1,065,594	2,531,300	370	1,

* For the 24 cities with separate school districts, employment in public educati systems must be added to "city employment" in order to have proper compariso the six cities for which public education is part of city employment--Boston York, Baltimore, Nashville. Memphis and Washington D.C. This is done in Column 1.

** For seven cities, employment in public education is reported on a county basi For these cities, education employment was estimated according to the ratio to county population, 1980.

Table 2-20 (Cont'd)

The Census Bureau publications, City Government Employment in 1979 and Local Government Employment in Selected Metropolitan Areas and Large Counties: 1979, use 1977 population estimates to relate to employment levels. Since the time of their publication, 1980 Census population numbers have become available, and thes are used in the analyses here presented.

Sources:

Column 1: U.S. Department of Commerce, Bureau of the Census, Local Government Employment in Selected Metropolitan Areas and Large Counties, 1979, GE79 No. 3, August 1980. Includes full-time equivaler~ city employment plus school district employment.. See ' ɔle 2-22. Where city was same as the county, or where city education employment was derived ** , Table 2-20 was used. El Paso data obtained from Table 5.

Column 2: U.S. Bureau of the Census, 1981, Final-Unofficial 1980 Census of Population and Housing.

Column 3: From U.S. Bureau of the Census, 1981, Preliminary, 1980 Census of Population and Housing.

Column 4: Column 1 divided by Column 2 times 10,000.

Column 5: Column 1 divided by Column 3 times 100,000.

Table 2-21

CITY GOVERNMENT EMPLOYMENT (INCLUDING PUBLIC EDUCATION) IN RELATION TO TOTAL CITY EMPLOYMENT FOR THIRTY LARGEST CITIES, 1979

	City Government Employment 1979	Total City-County Employment 1979	City Government Employment Per 10,000 Total City Employment
1. New York	325,391	3,572,402*	911
2. Chicago	94,888	2,800,220	339
3. Los Angeles	93,287	3,963,820	235
4. Philadelphia	59,979	869,609*	690
5. Houston	34,750	1,348,927	258
6. Detroit	44,024	1,134,037	388
7. Dallas	31,842	972,847	327
8. San Diego	20,187	848,087	238
9. Baltimore	41,900	492,144*	851
10. San Antonio	17,398	437,325	398
11. Phoenix	22,772	694,881	328
12. Indianapolis	19,699	490,921	401
13. San Francisco	29,515	589,550*	501
14. Memphis	23,999	406,661	590
15. Washington, DC	44,104	669,035*	659
16. San Jose	14,852	705,397	211
17. Milwaukee	17,865	565,668	316
18. Cleveland	22,559	854,780	264
19. Columbus, Ohio	14,303	480,589	298
20. BOSTON	24,995	555,513	449
21. New Orleans	21,596	349,070*	619
22. Jacksonville	21,658	293,192	739
23. Seattle	16,781	727,424**	231
24. Denver	20,289	450,892*	450
25. St. Louis	26,466	410,141*	645
26. Kansas City	15,686	412,010**	381
27. Nashville	17,342	310,946	558
28. El Paso	13,465	192,137	701
29. Pittsburgh	12,875	736,655	175
30. Atlanta	17,368	556,243**	312
TOTAL	1,181,835	26,891,123	-
AVERAGE	39,395	896,371	440

* County and city are coterminous in the case of eight cities.

** For three cities, employment for the largest central city county was used; in no case was the population size less than 87 percent of the total population.

Table 2-21 (cont'd)

Sources: Column 1: From Table 2-20, Column 1.

Column 2: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System, "Employment by Type and Broad Industrial Source, by State, Metro Area, and County, 1979", special computer printout, April 1981. Total employment is for the central city county except as noted. Boston's employment and population make up 96 percent and 87 percent, respectively, of that for the central city county (Suffolk). The population of the thirty largest cities comprises 46 percent of that for the central city counties. For employment, the central city concentration, relative to the central city county, is thought to be larger. In summary:

Cities which are also counties -

1. Denver
2. New Orleans
3. New York (5)
4. Philadelphia
5. San Francisco

Cities which have a special relationship with their county (where either the city undertakes traditional county functions or vice versa) -

1. Baltimore
2. Boston
3. Indianapolis
4. Jacksonville
5. Nashville-Davidson
6. St. Louis
7. Washington, DC (Also performs other federal functions)

Cities which make up parts of more than one county -

1. Seattle-Everett: King and Snohomish Counties
2. Kansas City: Jackson, Clay, and Platte Counties
3. Atlanta: Fulton and DeKalb Counties

Column 3: Column 1 divided by Column 2 times 10,000

Table 2-22

CITY GOVERNMENT EMPLOYMENT (INCLUDING PUBLIC EDUCATION) IN RELATION
CITY POPULATION AND EMPLOYMENT FOR THIRTY LARGEST CITIES, 1979-1980

	City Government Employment 1979	City Population 1980	Total City-County Employment 1979	City Population Plus Total City Employment 1979-1980	City Gove Employmen 10,000 Ci Populatio Total Cit Employmen
1. New York	325,391	7,071,030	3,572,402	10,643,432	306
2. Chicago	94,888	3,005,061	2,800,220	5,805,281	163
3. Los Angeles	93,287	2,966,763	3,963,820	6,930,583	135
4. Philadelphia	59,979	1,688,210	869,609	2,557,819	234
5. Houston	34,750	1,594,086	1,348,927	2,943,013	118
6. Detroit	44,024	1,203,339	1,134,037	2,337,376	188
7. Dallas	31,842	904,078	972,847	1,876,925	170
8. San Diego	20,187	875,504	848,087	1,723,591	117
9. Baltimore	41,900	786,775	492,144	1,278,919	328
10. San Antonio	17,398	785,410	437,325	1,222,735	142
11. Phoenix	22,772	764,911	694,881	1,459,792	156
12. Indianapolis	19,699	700,807	490,921	1,191,728	164
13. San Francisco	29,515	678,974	589,550	1,268,524	233
14. Memphis	23,999	646,356	406,661	1,053,017	228
15. Washington, DC	44,104	637,651	669,035	1,306,686	338
16. San Jose	14,852	636,550	705,397	1,341,947	111
17. Milwaukee	17,865	636,212	565,668	1,201,880	149
18. Cleveland	22,559	573,822	854,780	1,428,602	158
19. Columbus, Ohio	14,303	564,871	480,589	1,045,460	137
20. BOSTON	24,995	562,994	555,513	1,118,507	223
21. New Orleans	21,596	556,913	349,070	905,983	238
22. Jacksonville	21,658	541,269	293,192	834,461	260
23. Seattle	16,781	491,897	727,424	1,219,331	138
24. Denver	20,289	488,765	450,892	939,657	216
25. St. Louis	26,466	448,640	410,141	858,781	308
26. Kansas City	15,686	446,562	412,010	858,572	183
27. Nashville	17,342	439,599	310,946	750,545	231
28. El Paso	13,465	424,522	192,137	616,659	218
29. Pittsburgh	12,875	423,962	736,655	1,160,617	111
30. Atlanta	17,368	422,293	556,243	978,536	177
TOTAL	1,181,835	31,967,826	26,891,123	58,858,949	-
AVERAGE	39,395	1,065,594	896,371	1,961,965	201

Sources: Column 1 - From Table 2-20, Column 1
Column 2 - From Table 2-20, Column 2
Column 3 - From Table 2-21, Column 2
Column 4 - Column 2 plus Column 3
Column 5 - Column 1 divided by Column 4 times 10,000

Table 2-23

IMPACT OF "2½"

I. Levy Reduction

	FY82	FY83
Boston (Millions)	$ 88.0	$ 66.0
Massachusetts (Millions)	$486.2	$174.3
Boston as a Percent of Mass.	18%	38%

Source: Massachusetts Department of Revenue

II. Expenditure Reduction

	FY81[a]	FY82[b]	Percent Change
Boston Municipal Expenditures			
Total* (Millions)	$1,002	$901	-10%
Operating Departments**	453	332	-27
School Department**	268	263	- 2
County Government	14	11	-21
Capital Outlays***	28	19	-32
Fixed Charges***	216	221	+ 2

[a] City of Boston, Budget Expenditure Information
[b] City of Boston, Budget Appropriation Information

* Includes abatement payments (above overlay allowance) of $23 million in FY81 and $55 million in FY82.

** Includes prior year school cost overruns of $25 million in FY81 and $29 million in FY82.

*** Includes debt service, pensions, and state assessments.

Operating Departments	$453	$332	-27%
Public Safety	129	99	-23
Community Services	97	56	-42
Social Services	50	25	-50
Health and Hospitals	106	102	- 4
Other	71	50	-30

Table 2-23 (Cont'd)

III. Boston City Government Employment Reduction

	Municipal	School	Total
		(Number of Employees)	
1947	13,315	5,919	19,234
1967	14,575	6,849	21,424
1972	16,058	8,228	24,286
1980	12,938	7,935	20,873
1981	12,863	7,531	20,394
1982	10,078	6,496	16,574
		(Change in Number of Employees)	
1947-82	-3,237	+577	-2,660
1947-67	+1,260	+930	+2,190
1967-81	-1,712	+682	-1,030
1981-82	-2,785	-1,035	-3,820
		(Change, in Percent)	
1947-82	-24%	+10%	-14%
1947-67	+ 9	+16	+11
1967-81	-12	+10	- 5
1981-82	-22	-14	-19

Source: City of Boston Auditing Department, Annual Reports, 1947-1979.

Boston Municipal Research Bureau, 1980, 1981,1982.

See Table 2-16.

3. BROADENING THE REVENUE BASE, AN ELUSIVE GOAL

Boston's elegant and successful strategy of fostering (and achieving) economic development, and progress in well-being, through public investment, innovative services, and notable institutional advances, is marking time, as noted, not because spending is too high, but because revenue is too low. The only major tax allowed cities and towns by the state is the overworked property tax, which is high by all comparative measures and is now being rolled back. As a consequence, Boston and other Massachusetts cities and towns are increasingly dependent on federal aid, which is declining, and on state "local aid" revenue sharing. But the Massachusetts local aid share of state revenue lags that of other states, and is insufficient. State revenue available for local aid is limited because of imbalance in the state and local tax structure with its over-reliance on the local property tax, which is high by all comparative measures, while other types of potential state revenue sources remain underutilized.

Though Boston's property tax was high, it has always been a poor keystone for the City's revenue structure, whose narrow and inelastic base does not reflect or respond to the expanding economy. A diminishing property tax levy is now compounding the effect of limited non-tax revenue, limited state revenue sharing and declining federal aid. The property tax has been a poorly performing revenue raiser for more than half a century, despite the fact that its overuse made its burden the heaviest of the nation's large cities. Its regressivity also stands out in comparison. In addition, the administration of the property tax has been susceptible to distortion, dispersion, and costly litigation.

The Boston achievement of exemplary development goals of investment, structural change and job creation is greatly enhancing revenue generation--for the state and federal governments. Boston, with ten percent of the state population, and twenty percent of the jobs, generates seventeen percent of all state revenue raised. For the future, the expanding flow of income from Boston's transformed economy will be central to any measure of tax reform for broadening Boston's revenue base.

For the present, however, the fiscal impact of development has had only a limited effect on Boston's revenue. The several factors involved highlight the nature of Boston's complex problem of insufficient revenue. Boston's expanding flow of jobs and income produces a rising flow of tax revenue, but an antiquated state and local tax system does not enable Boston to latch on to an adequate share of the revenue it creates. The federal Internal Revenue Service and its income tax, and the state income and sales tax, are the main beneficiaries of investment, employment, and income growth in Boston. This mal-distribution is aided, in part, by the structural change in Boston's economy, favoring labor intensive growth in a broad range of services activities, which are great for income generation, but involve relatively lower levels of capital investment per worker susceptible to the property tax. Over one-fourth of the very substantial level of development investment has been carried out by non-profit institutions (including those in medicine and higher education), which are exempt from the City's property tax, though their employees pay federal and state income and state sales taxes. Another one-fourth benefited from tax (forgiveness) incentives, under Massachusetts Law 121A,

which provide for scaled down payments in-lieu-of exemption from the property tax. As development in the City became self-generating, the magnitude and period of tax forgiveness has been reduced. At some time in the future, this large flow of investment will pay full property taxes, but, for the present, the contribution to the City's revenue needs are significant but limited.

In the meantime, Boston's need for new revenues are substantial. State revenue sharing is compensating for only half of the large revenue losses under "2½" in FY82 and that scheduled for FY83. Revival of the City's public improvement program will require an expansion of indebtedness, an increase in debt service, and renewed access to the market for long-term municipal bonds. Declining federal aid must be offset. The inflation factor must be accommodated. Fixed charges are growing. Deficiencies in the "2½" legislation, centering on limiting the "tax levy" rather than the "tax rate", will mean a declining effective tax rate below "2½" as property values rise. With the state limiting local use of major "own source" revenues to the property tax, Boston's ability to control its fiscal and economic destiny is being eroded.

In comparison with Boston's revenue needs, the principal current tax reform measures fall short. An innovative joint state legislative and gubernatorial budget agreement, concluded at the end of April 1982, provided an early commitment to state revenue sharing of $166 million for FY83 under a formula designed to offset, in part, seheduled second year losses under 2½. Boston was to be compensated for two-thirds of its projected loss of $66 million. The successful gubernatorial challenger in that election year proposed to set aside forty percent of

the increment in state revenue each year for local aid. Projecting a growth in state revenue of $400 million for FY83 yielded an additional $160 million for local aid distribution. Boston's so-called Tregor bill approved in 1982 by the state legislature permitted a special emergency bond issue by the City to be funded by a temporary hotel excise tax and a real estate transaction tax. These measures will help but they are not nearly enough.

Over-Reliance on the Property Tax, Imbalance in State and Local Revenue Structure

The general revenue structure of the Commonwealth and cities and towns of Massachusetts is more heavily based on (local) property taxes than that of virtually any other state in the nation. Conversely, state taxes raised in Massachusetts make up a smaller share of state and local taxes than is the case for most states and the average for all states. In effect, in comparison with most other states, and with the nationwide average, Massachusetts over-relies on the (local) property tax, and underutilizes state taxes (mainly income and sales). In FY80, when property taxes made up seventeen percent of state and local general revenue for the nation as a whole, the percentage share for Massachusetts was 28 percent. See Table 3-1. In contrast, state taxes in Massachusetts accounted for only 55 percent of state and local taxes, in that year, in comparison with 61 percent nationwide.

Since then, there has been some improvement in balance in the tax structure as a consequence of the rollback in local tax levies (the property tax and the motor vehicle excise) and a small increment in

state revenue sharing (equal to a little over half of the local revenue loss in FY82). The cutback in locally raised taxes was not complemented by any broadening of the state tax base, however. The net result, thus far, is that the Massachusetts property tax share of state and local general revenue is still high by comparison, and the Massachusetts state and local tax structure still suffers from imbalance. At 24 percent, in FY82, the Massachusetts property tax share of state and local revenue continues to tower above the national average, and, at 59 percent, state taxes in Massachusetts, as a percent of state and local taxes, continue to lag the national average.[1]

- Dimension of the Property Tax in Massachusetts

High property taxes in Massachusetts have several dimensions. In FY80, property taxes in Massachusetts equalled 6.2 percent of state personal income, exceeding the national average of 3.5 percent, by 77 percent. The Massachusetts rate surpassed that of all states but Alaska. See Table 3-2. In that same year, property taxes in Massachusetts totalled $555 per capita, in contrast with a nation-wide average of $302 per capita--a difference of 84 percent. The FY82 cut in the Massachusetts property tax levy, and that scheduled for FY83, amount to an estimated twenty percent, a sum insufficient to displace the Commonwealth's standing in high property taxes.

- Business Share of Property Taxes

It is interesting to note also that property taxes in Massachusetts are high even though the business share of property taxes in the Commonwealth is low in comparison with other states and the nation as a whole. According to an analysis of the U.S. Advisory Commission on Intergovernmental Relations, property taxes on business accounted for 21

percent of the property tax levy in Massachusetts, in contrast with 35 percent for the nation as a whole, in FY77, the latest year for which comparative information is available. See Table 3-3.

- Business Share of the Overall Tax Burden

In fact, the overall tax burden on business in Massachusetts is low in comparison. Again, according to the ACIR, taxes with an initial impact on business made up only 24 percent of state and local taxes in Massachusetts in relation to 31 percent for the nation as a whole. See Table 3-4. Moreover, the business share of the overall tax burden in Massachusetts has declined thirty percent in the last twenty years, from 34 percent, in 1957, to 24 percent in 1977.

In sum, (local) property taxes in Massachusetts are high, while the state share of state and local taxes is low, and business pays a low share of both property taxes and all taxes.

- Property Tax Burden on Homes

Where does the burden then fall? According to a comparative analysis of the ACIR, Massachusetts, in FY79, had the highest effective tax rates on single family homes with FHA-insured mortgages in the nation, with a rate of 3.28 percent (in relation to value) in comparison with 1.34 percent for the nation as a whole.

- Dependency on Federal and State Aid

With property tax levies withering, and the state tax effort suffering from lag and imbalance, state and local governments in Massachusetts are dependent on federal and state aid, but federal aid is declining and the state aid share of state revenue is low in comparison with that of other states.

- Decline in Federal Aid

Federal aid to Boston has fallen from $167 million, in FY81, to an estimated $116 million, in FY82, with a projected further drop to $95 million for FY83. See Table 3-6.

- Low Level of State Aid

According to an ACIR analysis, in FY78, the latest year for which information was available, state aid per dollar of general revenue from own sources in Massachusetts, at $0.35, was forty percent below that in the the nation as a whole, at $0.58. See Table 3-7. State aid in Massachusetts in relation to the tax effort of cities and towns also lags. In FY78, state aid per $100 of own source municipal revenue was $31 in Massachusetts in comparison with a national average of $37, a difference of 19 percent. State aid in Massachusetts has improved since FY78. Preliminary estimates indicate a ten percent gain in Massachusetts state aid per dollar of general revenue from own sources between FY78 and FY82, which would still leave state aid in the Commonwealth far below the national average.

- Reduction in Overall State Tax Burden-Taxachusetts?

Traditionally, the overall tax burden in Massachusetts has been higher than that in other states because the Commonwealth has pioneered in, and is more advanced in the provision of social services, thereby earning the title "Taxachusetts". But this is changing fundamentally as a consequence of the property tax levy reduction, on the one hand, and the extraordinary recent performance of the Massachusetts economy and the growth in personal income, on the other hand. According to a report of an analysis undertaken by the Massachusetts State Legislature's Joint Committee on Taxation, state and local general

revenue, as a percent of state personal income, in Massachusetts, was twelve percent above the national average in FY79, and eight percent above, in FY80, but was projected to fall to seven percent below in FY82, and thirteen percent below in FY83. See Table 3-8. This suggests an ample margin for raising new non-property tax revenues, thereby improving the balance in Massachusetts state and local revenue structure, and expanding levels of state aid consonant with the nationwide average.

Limitations of the Property Tax as a Keystone for Boston's Revenue Structure

The property tax, as the only major tax permitted the City by the state, combines an array of shortcomings more than sufficient to garner the title "unloved". It is inelastic, does not reflect the growth of Boston's economy, nor respond to its fiscal needs, is a poor revenue raiser, is burdensome, is regressive, unfair, and has been susceptible to distortion, abuse, and litigation. And now its yield is mandated to decline. Alternative revenue sources are long overdue.

Boston has been stuck with an ostensible tax on wealth, whose per capita level is far below the statewide average, while its far-above-average-level of jobs and earned income per capita generate an elastic growth of revenue for the state and nation.

- Boston's Revenue Structure

Two decades of history of Boston's revenue structure highlight the City's dilemma. From 1961 to 1981, Boston's property tax levy, measured in inflation adjusted dollars, rose by only three percent. See Table 3-9. Despite this no-growth, which barely matched inflation, the City's ability to compensate with other faster growing revenue sources was limited. The property tax levy accounted for 63 percent of total

revenue received in 1961, 52 percent in 1981, and 50 percent in 1982. The non-tax revenue share of total revenue went from ten percent in 1961 to twelve percent in 1981, and fifteen percent in 1982. The State aid share also increased from seventeen percent in 1961 to nineteen percent in 1981; and 24 percent in 1982. The federal aid share did make a difference, rising from an eight percent share in 1961, to seventeen percent in 1981, but now it has declined to twelve percent in 1982.

- History of the Property Tax in Boston

The last half century history of Boston's property tax--in terms of tax rate, assessed value, and tax levy--provides a succinct perspective on the narrow and inelastic base, the poor performance as a revenue raiser, and its divorce from the main current of the City's economy. Boston's tax levy, measured in dollars adjusted for inflation, was virtually the same in FY81 as it had been more than fifty years earlier, in 1929. The City's property tax levy was $507 million in 1929 and $518 million in FY81, all measured in FY81 prices; and with "2½", was one-third less in FY83. See Table 3-10.

The base for Boston's tax levy--the assessed value of taxable property--had not increased after fifty years. Boston's assessed value had been $1,953 million, in 1929, and $1,909 million in 1981, all measured in current dollars. To compensate, Boston's tax rate had risen ten-fold over the period--about equal to the rate of inflation. In the interim, Boston's assessed property value had fallen by one-fourth, from 1929 to 1944, reflecting both (1) the severe impact of the great depression on Boston, with resulting neglect and disintegration of property and little new construction as well as (2) the reduction of assessments on homes and the shift of burden to commercial property.

Twenty years later (in 1964) Boston's assessed property value was still at virtually the same level, even though the early stages of the "New Boston" were already impacting property values. Since that time, which marks the beginning of the period of development and revival of the Boston economy, much new construction had benefited from property tax writedowns, under Mass. Law 121A and tax letters of agreement, measures which provided for lesser payments for development associated with blight removal. It was not until the 1970s and 1980s that recovery in the assessed value of taxable property brought the level up to where it had been a half century earlier in 1929. Finally, in 1983, assessments were brought into line with market values at a level over $12 billion, but at a time when tax rates were severely constrained.

In the meantime, however, Boston's economy had weathered the thirty-year depression, and had gone on to experience an extraordinary process of transformation and development. By 1979, fifty years later, the production of goods and services (earned income), in Boston, measured in dollars of constant value, had doubled.[2] (Of course, growth in the metro area and the nation as a whole was more rapid, with increases of three-fold and four-fold, respectively.) In effect, Boston's property tax, as it evolved, was not a suitable vehicle for capturing the potential revenue yield of the City's transformed and modernized economy.

- Impact of Change in Economic Structure

Part of the problem of the inelasticity of Boston's property tax base is related to the change in the structure of the City's economy, involving a relative shift from capital intensive activities (where property in the form of productive capital assets were important) to an

increasing specialization in labor intensive activities (requiring a lesser base of capital intensity. Manufacturing and trade, which had accounted for half of Boston's earned income in 1929 made up only a fourth in 1979. See Table 3-11. In contrast, services, finance and government increased their share of earned income generated from one-third in 1929, to almost two-thirds in 1979.

- Boston as Wealth Poor

In fact, Boston's wealth, in terms of property value is low. In 1980, in comparison with Massachusetts cities and towns, Boston's per capita "equalized" value of taxable property, at $9,305, was forty percent below the statewide average of $15,387 (in a measure, reported by the State Department of Revenue, designed to reflect, comparably, the full cash value of all property). See Table 3-12. This low level of wealth per capita must be squeezed harder to yield the same levels of revenue generated in Massachusetts cities and towns.

- Role of Exemptions

One of the reasons for Boston's low level of taxable wealth per capita, in comparison with Massachusetts cities and towns, is the large role of tax-exempt property in the City. According to a report of the Assessing Commissioner, the assessed value of tax-exempt property totalled $2,658 million in FY81, in comparison with $1,908 million for taxable property. See Table 3-13. Boston has a relative concentration of tax-exempt property because it is a state and regional capital and a center of medicine and higher education serving the needs of the metro area and nation. A recent study showed that Boston public school graduates made up only 3.5 percent of the enrollment in four-year

colleges in Boston and that Boston residents represented only one-third of in-patient admissions to private hospitals in Boston.[3]

- Heaviest Tax Burden Large City in the Nation

The preceding shortcomings of Boston's property tax are compounded by other failings. Boston's property tax burden is the highest among the nation's large cities. Boston's effective property tax rate of 3.81 percent of property value (in 1976) was greater than that of the largest city in each state, and compares with a median rate of 1.52 percent for these cities.[4] Even in 1983, after two years of drastic levy reductions, Boston's average effective rate stood at 3.1 percent.

- Regressivity of State and Local Taxes Affecting Family Income of Boston

Notable also is the finding that state and local taxes affecting families in Boston are regressive (with a larger proportionate burden on those in lower income brackets)are more regressive than is the case for the average of the largest cities in each state, and are among the most regressive in comparison with these cities. According to a study reported by the ACIR, state and local taxes in Boston absorb 17.5 percent of the adjusted gross income of $7,500 (for a family of four), while taking only 11.4 percent of that of families with incomes of $50,000. See Table 3-14. These burdens far surpass the fifty city average of 9.8 percent, for families with incomes of $7,500, and 7.5 percent for families with incomes of $50,000. Boston's burdens also exceed those for Newark, New Jersey, the city with levels and regressivity of burden next highest. In the case of Newark, state and local taxes for families with incomes of $7,500 took 14.8 percent of income, while families with incomes of $50,000 had to yield only 8.7 percent for property taxes. The dominance of the property tax

contributes to this unique Boston role. It therefore follows that broadening Boston's revenue structure through an increase in non-property tax revenues could contribute importantly to the improvement of tax equity.

- Other Shortcomings

There are other problems still with Boston's property tax. It is susceptible to dispersion and distortion which has led to costly litigation and has made more difficult the task of revaluation and classification. These aspects are reviewed in other parts of this report.

Fiscal Impact of Development

Boston's economic development will be the key to the City's fiscal survival. At some point in the future, hopefully soon, the income, employment and sales generated by the City's expanding economy will translate directly into revenue for Boston, or indirectly into broadened state revenue sharing. In addition, sometime in this decade and next, the tax write-off incentives so important to induce investment and job creation will be expiring and returning these properties more fully to the tax rolls. Furthermore, with the development process in Boston now self-generating and responding to the proven attractiveness of the City and its unique aras of leadership, the pioneering and innovative practice, begun this year, of an equity return for Boston on new private development on land acquired or leased from the City, could generate an expanding flow of income from the private sector to the public sector.

But this time is not yet. Thus far, the fiscal impact (to Boston) of development has been important but limited. The fiscal yield to Boston has been constrained by (1) the tax write-offs to induce

development (mainly residential and commercial construction), (2) the concentration of much of the development in those great Boston employment and income generating export services activities--medicine and higher education--which are tax exempt, and (3) the fact that the principal revenue yield of development--income and sales taxes--escapes the reach of the City.

- Development's Fiscal Yield, 1975-81

Nearly $2.2 billion of (mainly private) realty development (new construction and rehabilitation) was completed in the 1975-81 period.[5] See Table 3-15. Slightly less than half of this investment is subject to the property tax, one-quarter makes (Massachusetts Law) 121A payments, one-eighth (exempt institutions) contributes in-lieu-of-tax payments under contract with the City, and one-sixth is fully exempt.[6] Eleven million square feet of office space and more than 9,000 dwelling units were built or upgraded during these seven years (and 55,000 jobs created).

The billion dollars of taxable major development completed during the 1975-81 period is a significant but not sufficient addition to Boston's tax base. In terms of the $12.2 billion dollar tax base that Boston's Office of Property Equalization found for Fiscal Year 1983, the 1975-81 taxable development makes up eight percent. In addition, Boston has established payments or service contracts tied to seventy percent of the $1.16 billion of "property tax exempt" growth.

Of course, the direct fiscal contribution of the 207 major investment projects included in the 1975-81 tally just cited represents only part of the development impact on tax base and tax yield. The market value of taxable property has also grown through the

rehabilitation, conversion, and above standard maintenance of many properties. Improvements to Boston's 67,000 one-, two-, and three-family homes are small individually but add up to millions of dollars annually. Only a fraction of the construction expenditures for apartment and condominium conversion are accounted for here. Improved market values comprise another set of active tax base growth factors, compounding the effect of the 1970-80 growth in households on housing demand. Rising demand and requirements for office space have reduced vacancies and pushed up rents, profits, and property values. Finally, broadened innovative municipal services and capital improvements have enhanced property values through neighborhood revitalization.

Nonetheless, when placed in the context of Boston's revenue needs and the role of the property tax in meeting these needs, even this strong (and increasing) pace of realty development falls far short of a solution to Boston's fiscal dilemma. If seven years of taxable development now comprise seven to ten percent of the present tax base, then the annual compound rate of tax base growth due to these major projects is only one to one and a half percent. With the 2½ percent effective tax rate on new development allowed by "Proposition 2½", the annual property tax revenue yield from a billion dollars of taxable realy value increase is only $25 million or sixteen percent of Boston's $153 million permanent revenue loss from just the first two years of Proposition 2½ levy and auto excise tax reductions. Even with the pace of taxable development doubling over the next several years, the annual revenue growth for Boston will be but $7 million (all amounts in dollars of constant value at 1981 prices).

Tax exempt institutional development--medical, education and cultural--loomed large in Boston in the 1975-81 period, and added even less to Boston's revenue base (though it represented significant strengthening of the tax bases of the state and nation in terms of the increments to employment, income and sales). The investment of tax-exempt medical institutions, in that period, virtually equalled that of residential development (mainly 121A).

On the other hand, only sixteen percent of development expenditures were carried out without some legal or contractual payment mechanism.

FISCAL STATUS OF BOSTON DEVELOPMENT COMPLETED
1975-81
(Percent Composition)

	All Projects	Taxable	Mass. Law 121A	Payments In-Lieu-Of Taxes	Other Exempt
Projects	100%	49	24	12	15
Cost	100%	47	25	12	16

The worth of annually completed 121A projects has grown fairly steadily between 1975 and 1982, and exempt development has proceeded at an even pace. Taxable completions follow closely the path of commercial development. Ninety percent of office development costs have been taxable and these account for seventy-six percent of taxable completions. See Chart 3-1.

- Role of Massachusetts Law 121A, 1961-80

In operation since 1960, Massachusetts Law 121A represented a powerful stimulus to development by providing for property tax exemption and payments in-lieu-of-taxes for construction related to blight removal. As a consequence of the dividend limitation provision of the

legislation, however, the use of "121A" has been largely made up of residential projects, mainly private, where this constraint was no obstacle to tax shelter investment. In the 1961-80 period, 110 121A projects were completed at a cost of $1.2 billion, including 96 projects with 15,224 dwelling units. See Table 3-16. The present value of these projects is estimated at $1.5 billion, in 1981 prices.

As the development process in Boston became self-generating, the City moved, in 1978, to narrow the tax incentive, reducing the exemption period, generally, from forty years to fifteen years, concentrating the magnitude of the incentive to the first five years, on a sliding scale, and tailoring new 121A (and tax letter) guidelines to fit the needs of the different development project sectors.

- Marginal Tax Benefits to the City

The overriding revenue problem of the new development continues to be the marginal direct tax benefits to Boston. Examples of retail development and hotel development are cases in point. In each of these cases, state and federal revenue returns far outweigh the yield to the City.

- Faneuil Hall Marketplace

Faneuil Hall Marketplace, inaugurated in August 1976, is frequently cited as the turning point in Boston's transition to a self-generating development process. With more than 35,000 visitors a day, exceeding the attraction of Disney World, record-breaking sales at $300 per square foot (per year), and noted as the development which brought the suburban shopper back to Boston, Faneuil Hall Marketplace benefited from a 99-year lease of historic Faneuil Hall and a Tax Letter of Agreement for the three Quincy Market buildings providing for a payment to the City

equal to 25 percent of gross rental income.[7] The estimated Boston tax yield of $1.4 million compares with a return to the State of $5.1 million. See Table 3-17.

- Hotel Development Underway and Planned

The differential city-state tax yield is also enlightening in view of the extraordinary hotel development boom underway in Boston, involving an investment of more than $400 million for the construction of 5,000 hotel rooms in a dozen projects. The City return under hotel development is based on Tax Letters of Agreement, whereas the state is the beneficiary of the hotel occupancy tax, the income tax, the meals tax, the construction employees income tax, the construction materials tax, the corporate income tax, and the sales tax on guest purchases. A recent study shows that hotel development underway and planned will yield $5 million to Boston in in-lieu-of-tax payments, and $28 million to the state. See Table 3-18. For all of the development projects underway and planned, involving $5.8 billion and the creation of 45,000 jobs, and including those projects without tax agreements (mainly office buildings), the projected revenue yield to the City is $35 million, and that to the state is $192 million.[8] See Table 3-19.

- Report on Fiscal Productivity

A report prepared by the Boston Redevelopment Authority for presentation to the Boston City Council at its annual budget hearings, noted that 76 development projects approved and underway in FY81, incolving a cost of $1.2 billion and the generation of 33,000 jobs, was expected to yield $22 million in net new revenue for the City and $100 million for the state.[9]

Boston Revenue Needs

Boston's revenue needs are large even without providing any new services that the people of the City might require. These needs can be seen from several viewpoints.

- Revenue Needs to Compensate for "2½", Less Federal Aid and Inflation

Just to keep afloat and make up for revenue lost, the cutback in federal aid and the inflation factor in FY82 and that projected for FY83, add up to needed new revenue of $270 million. See Table 3-20. If to this, provision is made for the remaining stages of "2½" levy reduction ($24-$124 million), indebtedness to fund the rebirth of a capital improvements program ($10-$15 million), and an allowance for growth in other fixed charges (state assessment and pensions--$10 to $15 million), further revenue needs of $44 to $154 million would have to be forthcoming, for an overall total of minimal new revenue requirements of $300 to $400 million.

- Implications of Tax Levy vs. Tax Rate Limitation

Proposition "2½" provides for reduction of the property tax levy in annual stages of fifteen percent until the levy is down to 2½ percent of property value. At that point, the only allowable increase in levy would be the addition of "new development". This means that as property values grow, through inflation or other factors of value enhancement, and the levy remains fixed, the effective tax rate will begin to fall below 2.5 percent. Noting this feature of the present law, several observers have advocated change of the limitation to the "tax rate" rather than the "tax levy".

- Contribution of Boston to State Revenue Raised

A substantial share of the state's revenue is raised in Boston while only a fraction of that is returned to the City in the form of state aid. Even with the increases in state aid to Boston in FY82, and that projected for FY83, the City's share is dwarfed by the state tax revenue siphoned from Boston. State tax revenue of $5,029 million, projected for FY83, includes an estimated $882 million, eighteen percent of the state total that is raised in Boston. See Table 3-21. In comparison, state aid to Boston is projected at $262 million for FY83, including a projected FY82-83 increment of $44 million. In effect, Boston gets back in state aid only $1 out of every $3 it sends in the form of state tax revenue.

- Erosion of Local Fiscal Control due to Constraint on "Own Source" Revenue

Most of the nation's other large cities supplement property tax revenues with other revenue measures, including income, sales and excise taxes. Boston is proscribed from doing this by state law. As a consequence, the City's control over its fiscal destiny and the kind of municipal government it might choose to have has become very seriously eroded. A broadening of the City's revenue base is required to enable the citizens of Boston to have the kind of municipal government it might choose to have.

Shortfall in Current Reform Proposals

Unfortunately, the principal tax reform proposals currently under discussion fall far short of meeting Boston's revenue needs.

- Joint Executive--Legislative Proposal of April 1982

In a pathbreaking, far-sighted action, the leadership of both houses of the Massachusetts legislature, together with the former

Governor, agreed on a FY83 increase in state aid at an unprecedented early stage in the formulation of the state budget for the new fiscal year, and a distribution formula geared to offset (in part) "2½" revenue losses for FY82 and that projected for FY83. The proposed increment in state aid, of $166 million, includes $44 million for Boston. This, together with the FY82 state aid increase of $39 million for Boston would mean that FY82 and FY83 state aid increment of $83 million would temper Boston's tax levy loss of $154 million, an offset of 54 percent.

This represents progress but is short of the $270-400 million Boston needs just to maintain its pre-"2½" level of services and public improvements.

- Governor Dukakis' State Revenue Sharing Proposal

Prior to his election in 1982, Governor Michael Dukakis proposed to channel forty percent of the annual increment in state revenue to state aid in the form of an entitlement. He suggested that if state revenue were to increase by $400 million (a growth of eight percent over FY83), $160 million might be added to state revenue sharing. This was a forward-looking measure, but it also failed to meet Boston's needs. Even though Boston did well under a distribution formula that gave it 28 percent of the actual state aid increment of $148 million, it received only $42 million more, which does not match the City's needs.

- 1982 Funding Loan Act Revenues

In April 1982, the City submitted an amended financial plan to the legislature requesting authorization for a $75 million bond issue designed to partially fund payment of court-ordered tax repayments under the so-called "Tregor" decision. The approval of this measure made it possible to use commensurate City revenues for City services, especially

police and fire, which had been cut back. A unique feature of the bill was the authorization of local excise taxes, as "own source" revenue, to service the bonds.

Temporary revenue sources consist of the net proceeds of the 5.7 percent state excise on hotel and motel room charges collected from hotels opening in Boston after August 1, 1981 and the receipts from the state deed excise collected on real estate recordings within the City. These revenues commence August 1, 1982 and expire with retirement of the bonds. Also pledged to repayment of the bonds, but not expiring upon their retirement are a $500 per unit condominium conversion fee and an augmented fire services availability fee. Collection of this last measure has been enjoined by Superior Court and the City has appealed that decision. Proceeds from the sale of City assets have also been used to meet these tax repayment costs.

Footnotes for Vol. 1, Ch. 3

1 Federal Reserve Bank of Boston, New England Economic Review, January-February, 1982.
Katharine L. Bradbury and Helen F. Ladd, "Proposition 2½: Initial Impacts, Part I", pages 19 and 21.

2 Jeffrey Brown, Boston Redevelopment Authority, "Fifty Year Profile of Boston", draft report, based on "national accounts" information of the U.S. Department of Commerce, Bureau of Economic Analysis.

3 City of Boston, Office of the Mayor, Boston's Tax Strategy, the Fiscal Experience of the City, May 1974.

4 U.S. Advisory Committee on Intergovernmental Relations, Significant Features of Fiscal Federalism, 1979-80 Edition, October 1980, Table 92.

5 John Avault, Boston Redevelopment Authority, Fiscal Impact of Development in Boston, 1975-81, October 1981.

6 For detailed analyses and evaluations of 121A and tax letters of agreement see: Peter Menconeri, Boston Redevelopment Authority, 121A Corporations and Tax Letters of Agreement, An Analytical Evaluation, July 1977; Thomas J. Ragonetti, City of Boston, Informal Tax Agreements in Boston: Analysis, Evaluation and Directions for Improvement, April 1977.

7 Christopher Carlaw, Boston Redevelopment Authority, Faneuil Hall Marketplace: The Differential in City and State Tax Yield, September 1978.

8 Alexander Ganz, Gregory Perkins and Frances Larson, Boston Redevelopment Authority, Impact of the Boston Capital Construction Freeze on Jobs and Tax Revenue, April 1981.

9 Robert J. Ryan, Director, Boston Redevelopment Authority, A Special Report on Fiscal Productivity, June 1981.

Table 3-1

IMBALANCE IN MASSACHUSETTS STATE AND LOCAL TAX STRUCTURE;
OVER-RELIANCE ON THE PROPERTY TAX,
UNDERUTILIZATION OF BROAD-BASED STATE TAXES,
FY80

	U.S.	Massachusetts
Property Taxes as a Percent of State and Local General Revenue	17%	28%
State Taxes as a Percent of State and Local General Revenue	61%	55%

Source: U.S. Bureau of the Census, Governmental Finances in 1979-80, Tables 5 and 26.

Table 3-2

THE BURDEN OF THE PROPERTY TAX IN MASSACHUSETTS
IN RELATION TO THAT OF THE NATION AS A WHOLE,
FY80

	U.S.	Massachusetts
Property Taxes as a Percent of Personal Income	3.5%	6.2%
Property Taxes per Capita	$302	$555

Source: Ibid, Tables 24 and 25.

Table 3-3

RELATIONSHIP OF PROPERTY TAXES WITH AN INITIAL IMPACT ON BUSINESS TO
TOTAL PROPERTY TAXES IN MASSACHUSETTS AND IN
NATION AS A WHOLE,
1977

	U.S.	Massachusetts
Property Taxes on Business as a Percent of Total Property Taxes	35%	21%

Source: U.S. Advisory Commission on Inter-Governmental Relations, Significant Features of Fiscal Federalism, 1979-80 Edition, Table 70.

Table 3-4

RELATIONSHIP OF STATE AND LOCAL TAXES WITH AN INITIAL IMPACT ON BUSINESS TO TOTAL STATE AND LOCAL TAXES, MASSACHUSETTS AND U.S., 1957 AND 1977

	Year	U.S.	Massachusetts
Taxes on Business as a Percent of Total Taxes	1957	37%	34%
	1977	31%	24%

Source: Ibid., ACIR, Table 49.

Table 3-5

AVERAGE EFFECTIVE PROPERTY TAX RATES, EXISTING SINGLE-FAMILY HOMES WITH FHA INSURED MORTGAGES, MASSACHUSETTS AND U.S., 1979

	U.S.	Massachusetts
Effective Property Tax Rates Single-Family Homes (Taxes as a Percent of Value)	1.34	3.28

Source: Ibid., ACIR, Table 91.

Table 3-7

RELATIONSHIP OF STATE AID TO OWN SOURCE STATE REVENUE AND OWN SOURCE MUNICIPAL REVENUE IN MASSACHUSETTS AND U.S., 1978

	U.S.	Massachusetts
State Aid per Dollar of State Own Source General Revenue	$0.58	$0.35
State Aid per $100 of Municipal Own Source Revenue	$37	$31

Source: Ibid., ACIR, Tables 109 and 110.

Table 3-6

THE EFFECTS OF PRESIDENT REAGAN'S PROPOSED FY83 BUDGET
ON THE CITY OF BOSTON
(Dollars in Thousands)

Agency/Program	Actual FY81	Actual or Estimated FY82	Expected FY83
School Lunch, Summer Food, Nutrition Education	$8,779	$4,870	$5,100
Public Works	4,500	2,138	0
Education	17,079	16,064	11,402
Energy Conservation	375	76	11
Health and Human Services	11,692	10,975	9,525
Housing and Urban Development	59,710	45,981	38,825
Urban Parks and Historic Preservation	2,150	162	0
Manpower Training	29,900	9,182	7,140
Urban Transportation	11,000	7,500	4,633
General Revenue Sharing	21,854	18,616	18,616
Arts, Humanities, Older Americans	342	313	236
Total	$167,381	$115,817	$95,488

Source: Office of Intergovernmental Relations, City of Boston, The Effects of President Reagan's Proposed Fiscal Year 1983 Budget on the City of Boston, February 1982.

Table 3-8

"TAXACHUSETTS"--A LOOK AT THE NUMBERS;
STATE AND LOCAL TAX BURDEN-AS A PERCENTAGE OF PERSONAL INCOME

	(Percent)				
	FY79	FY80*	FY81**	FY82**	FY83**
Massachusetts	17.5	16.2	15.9	14.0	13.0
U.S. Average	15.7	15.0	14.8	15.1	14.9
Massachusetts in Relation to U.S. Average	+11.5	+8.0	+7.4	-7.3	-12.7

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* Estimated
** Projected

Note Assumption: No revenue source expansion is included in estimates other than projected economic growth.

Source: Joint Taxation Committee, Massachusetts Legislature, February 1981.

Table 3-9

CITY OF BOSTON, REVENUE BY SOURCE, 1960-1982

A. In Millions of Dollars of Constant Value at FY1981 Prices*

Year	Total Revenue Received	Property Tax Revenue	Non-Tax Local Revenue	Long Term Loans	State Aid	Federal Aid
1960	771	498	75	20	123	55
1961	784	495	80	13	133	63
1967	1,019	476	181	85	154	122
1972	1,150	596	164	162	170	58
FY76	1,148	493	152	123	199	181
FY80	1,043	489	124	60	198	171
FY81	982	511	117	0	187	167
FY82	833	397	126	0	203	108

* Expressed in dollars of constant value using the implicit price deflator for state and local government purchases, Economic Report of the President.

B. In Millions of Dollars of Current Value

1960	226	146	22	6	36	16
1961	236	149	24	4	40	19
1967	383	179	68	32	58	46
1972	596	309	85	84	88	30
FY76	792	340	105	85	137	125
FY80	957	449	114	55	182	157
FY81	982	511	117	0	187	167
FY82	896	427	135	0	218	116

Source: Boston Redevelopment Authority, based on City of Boston, Auditing Department, Annual Reports, FY1981 and FY1982 estimated on the basis of budget expenditure and budget appropriation information.

Table 3-10

TAX RATE, ASSESSED VALUE, AND TAX LEVY
CITY OF BOSTON 1929-1982;
CURRENT YEAR VALUES AND FY81 CONSTANT DOLLAR COMPARISONS

Year	Tax Rate ($ per $1,000 of Assessed Value	Assessed Value (Millions of $ at Current Prices	Property Tax Levy (Millions of $ at Current Prices	Property Tax Levy (Dollars of Constant Value at FY81 Prices	Impl Price Defl FY19
1929	28.0	$1,953	56.8	507.3	11.
1940	40.6	1,483	60.2	557.6	10.
1950	63.0	1,567	99.3	491.3	20.
1960	100.7	1,465	147.6	503.2	29.
1967	117.8	1,531	180.3	479.6	37.
1970	156.8	1,617	253.5	550.2	46.
FY76	196.7	1,793	352.8	511.5	68.
FY80	252.9	1,738	439.5	479.1	92.
FY81	272.7	1,902	518.7	518.7	100.
FY82	230.9	1,909	440.7	409.9	107.

Source: City of Boston and County of Suffolk, Auditing Department, Annual Report, 1974; for 1929-1964 Tax Rate, Assessed Value, and Property Tax Levy, Boston, Assessing Department 1981 Annual Report.

Price deflators from Economic Report of the President, 1982, Deflator Ser State and Local Government Purchases of Goods and Services.

Note: Property tax levy in 1929 and 1950 is slightly greater than product of tax assessed value because levy included poll tax.

SELECTED YEARS 1929-1979
(Thousands of 1980 Dollars)

Sector	1929	1940	1950	1959	1967	1975	1979
Total Non-Farm	5,043,012	4,836,200	5,654,036	6,367,027	8,318,899	8,620,506	9,299,501
Private[1]	4,636,647	4,160,870	4,851,752	5,287,079	6,953,547	7,115,729	7,578,560
Construction	310,002	202,392	308,525	301,132	427,394	420,881	241,242
Manufacturing	1,000,993	736,576	1,119,240	1,243,811	1,251,622	963,412	1,036,528
Non-Durable				811,563	785,026	584,878	594,572
Durable				432,248	466,596	378,534	441,956
Transportation & Public Util.	513,464	439,347	506,586	621,679	732,563	875,747	975,485
Trade	1,595,832	1,675,253	1,622,549	1,323,952	1,753,754	1,387,205	1,259,136
Wholesale				673,866	881,438	730,381	636,787
Retail				650,085	872,316	656,824	622,350
Finance, Ins. & Real Estate	512,569	494,875	547,269	807,717	1,152,556	1,204,914	1,328,965
Services	693,370	604,244	730,699	978,465	1,626,399	2,251,964	2,728,628
Government & Gov. Ent.	406,365	675,330	802,284	1,079,948	1,365,352	1,504,777	1,720,941
Fed. Civilian	92,476	250,048	359,542	459,776	552,129	495,394	474,115
Fed. Military	16,732	36,317	125,730	105,497	109,915	29,620	36,524
State & Local	297,157	388,966	317,012	514,675	703,308	979,763	1,210,302

[1] Agriculture, Forestry, and Fishing, and Mining industries are included in Total Private.

Source: Jeffrey Brown, Boston Redevelopment Authority, Fifty-Year Profile of Boston, 1982 (draft), based on information from U.S. Bureau of Economic Analysis, Regional Economic Information System.

Table 3-12

BOSTON'S "EQUALIZED" PROPERTY VALUE IN COMPARISON WITH THAT OF OTHER MASSACHUSETTS CITIES AND TOWNS

	1980 Equalized* Property Value Per Capita, In Dollars
Boston	$9,305
Averages for Cities and Towns with Population of:	
50,000 and over	10,588
25,000 to 50,000	16,652
10,000 to 25,000	17,709
5,000 to 10,000	19,974
Less than 5,000	26,073
Statewide Average	$15,387

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* The Massachusetts Department of Revenue's estimate of full cash value of all property in the city or town, current for January 1, 1980.

Source: Massachusetts Taxpayers Foundation Inc., Municipal Financial Data, Including 1981 Tax Rates

Table 3-13

SUMMARY OF LIST OF EXEMPT PROPERTY IN BOSTON, FY81
(Millions of Dollars)

United States of America	$104.8
Commonwealth of Massachusetts	673.7
Houses of Religious Worship	66.8
Literary (Private Higher Education)	257.3
Benevolent (Private Hospitals)	206.8
Charitable	90.5
Scientific	11.9
City of Boston	1,228.9
Other	17.4
Total	$2,658.1

Source: City of Boston Assessing Department, 1981 Annual Report, p.39.

Table 3-14

DISTRIBUTION OF MAJOR STATE-LOCAL TAX BURDENS RELATIVE TO FAMILY INCOME SIZE; COMPARISONS FOR LARGEST CITY OF EACH STATE, 1976
(Tax Burdens as a Percentage of Income)

Adjusted Gross Income, Family of Four	All States	Boston	Newark
$7,500	9.8	17.5	14.8
10,000	9.1	16.0	13.3
15,000	7.9	14.2	11.6
17,500	7.9	13.7	11.1
25,000	7.6	12.7	10.0
50,000	7.5	11.4	8.7

Source: U.S. Advisory Commission on Intergovernmental Relations, op.cit., Table 36.

	121A	Other Exempt	Taxable	Total	121A	Other Exempt	Taxable	Total	By Type of Development
Office									
# Developments	2	2½[A]	34½[A]	19	-	-	-	-	19
Square Feet	340,000	670,000	9,995,700	11,005,700	-	-	-	-	11,005,700
$1,000s (1980)	28,704	55,641	773,413	857,758	-	-	-	-	857,758
Retail									
# Developments	4	1	24	29	1	-	4	5	34
Square Feet	319,800	215,000	568,000	1,102,800	4,000	-	79,500	83,500	1,186,300
$1,000s (1980)	41,656	12,685	33,908	88,249	236	-	5,412	5,648	93,897
Medical									
# Developments	2	7	-	9[1]	-	3[2]	-	3[2]	12[3]
Square Feet	60,500[1]	1,974,600	-	2,035,100[1]	-	855,000[2]	-	855,000[2]	2,890,100[3]
$1,000s (1980)	190,000	161,580	-	351,580	-	73,280	-	73,280	424,860
Cultural									
# Developments	-	13	6	19	-	3	1	4	23
Size	-	-	-	-	-	-	-	-	-
$1,000s (1980)	-	41,778	2,574	44,352	-	16,434	2,680	19,114	63,466
Industrial									
# Developments	-	1	1	2	-	10	2	12	14
Square Feet	-	105,000	160,000	265,000	-	749,000+	120,500	869,500+	1,134,500+
$1,000s (1980)	-	2,840	2,360	5,200	-	28,444	11,318	39,762	44,962
Hotel									
# Developments	-	-	4	4	-	1	-	1	5
Rooms	-	-	1,738	1,738	-	270	-	270	2,008
$1,000s (1980)	-	-	68,217	68,217	-	19,170	-	19,170	87,387
Educational									
# Developments	-	6[4]	-	6[4]	-	4[+]	-	4[+]	10[4+]
Square Feet	-	694,500[4]	-	694,500[4]	-	1,324,000[+]	-	1,324,000[+]	2,018,500[4+]
$1,000s (1980)	-	44,170	-	44,170	-	103,080	-	103,080	147,250
Residential									
# Developments	21[5]	1	23	45[5]	22	7	9	38	83[5]
Dwelling Units	2,558[5]	110	1,588	4,256[5]	3,396	923	600	4,919	9,175[5]
$1,000s (1980)	112,668	5,896	84,875	203,439	174,702	47,043	32,069	253,814	457,253
TOTAL # DEVELOPMENTS	29	31½	92½	153	23	28	16	67	207[6]
TOTAL COST	373,028	324,590	965,347	1,662,965	174,938	287,451	51,479	513,868	2,176,833
CITY TOTALS BY FISCAL STATUS									
# DEVELOPMENTS	52	59½	108	207[6]					
TOTAL COST	547,966	612,041	1,016,826	2,176,833					

Note: All money figures are in thousands of dollars at 1980 prices.

+ Signifies that these square footage figures do not include all developments.

A The "half" development is the Blue Cross/Blue Shield building which is partly exempt and partly taxable as condominium offices.

1 Plus garage parking for 634 cars and Medical Area Total Energy Plant.

2 Plus garage parking for 400 cars.

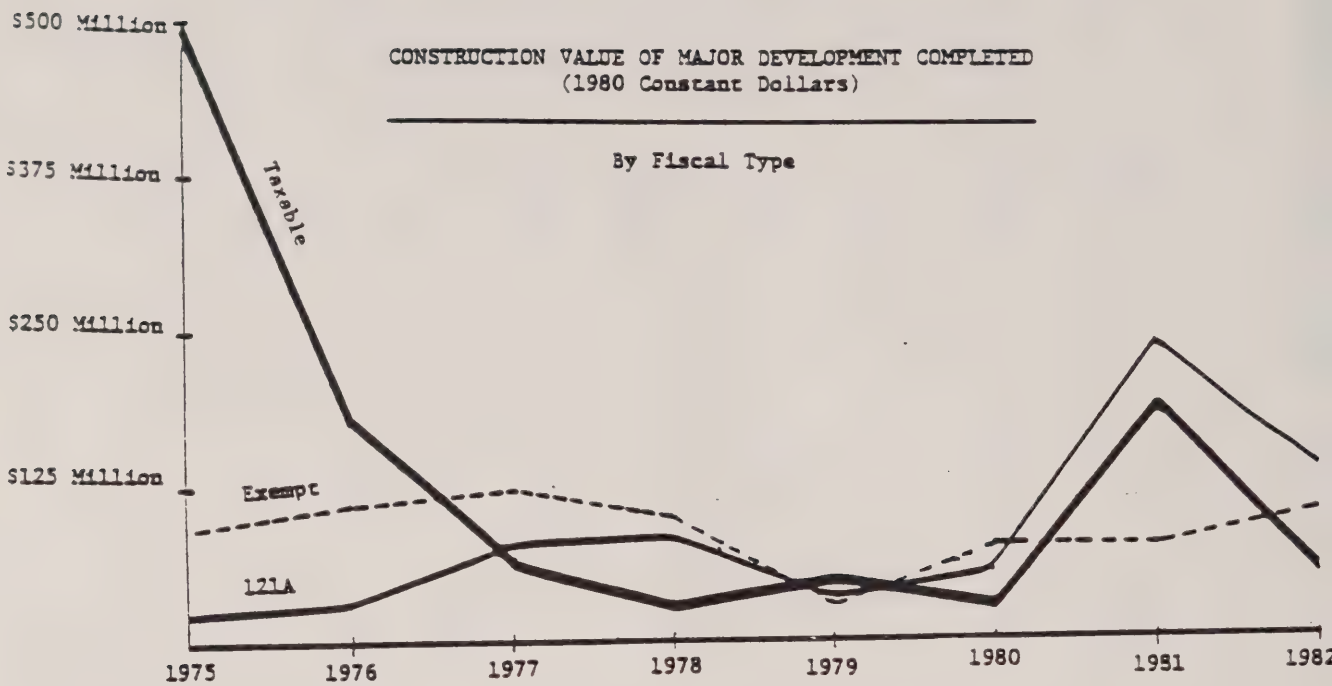
3 Plus garage parking for 1,034 cars and Medical Area Total Energy Plant.

4 Plus dormitory housing for 390 students.

5 Plus garage parking for 350 cars.

6 Total number of developments does not equal row and column sums due to multiple [illegible]

Chart 3-1


$500 Million
$375 Million
$250 Million
$125 Million
CONSTRUCTION VALUE OF MAJOR DEVELOPMENT COMPLETED
(1980 Constant Dollars)
By Fiscal Type
Taxable
Exempt
121A
1975
1976
1977
1978
1979
1980
1981
1982

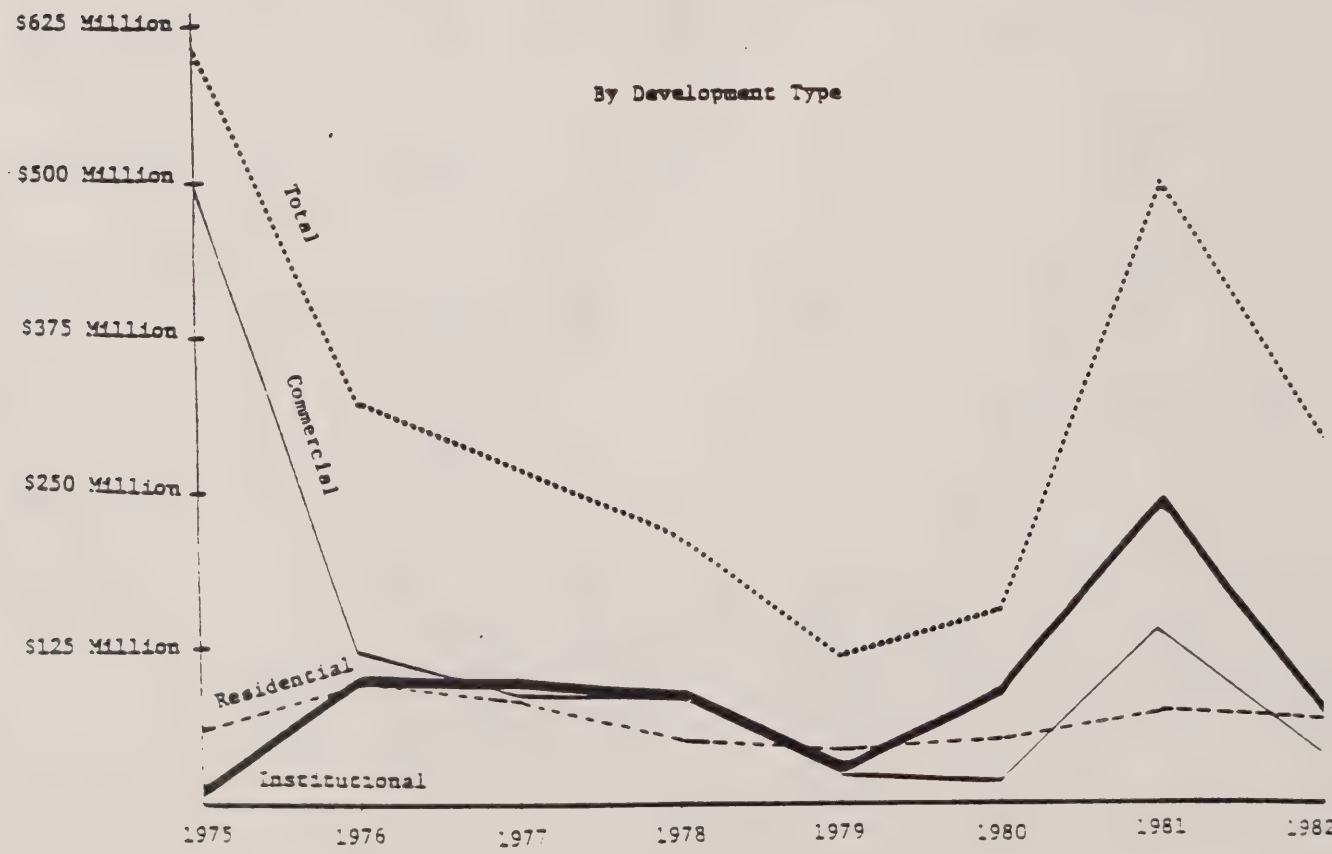

$625 Million
$500 Million
$375 Million
$250 Million
$125 Million
By Development Type
Total
Commercial
Residential
Institutional
1975
1976
1977
1978
1979
1980
1981
1982

Table 3-16

MASSACHUSETTS LAW 121A PROJECTS APPROVED IN BOSTON, 1961-80, BY YEAR

#	ID	YEAR OF APPROVAL	AGE	ORIGINAL COST	DEPRECIATED VALUE	INFLATED VALUE
1	1.0	61	19	$4,500	$2,363	$6,476
2	2.0	61	19	$190,000	$99,750	$273,440
3	3.0	62	18	$3,500	$1,925	$5,199
4	4.0	63	17	$6,700	$3,853	$10,247
5	6.0	63	17	$3,333	$1,916	$5,098
6	7.0	64	16	$2,476	$1,486	$3,867
7	8.0	65	15	$4,369	$2,731	$6,886
8	9.0	66	14	$6,194	$4,026	$9,857
9	10.0	66	14	$8,000	$5,200	$12,731
10	11.0	67	13	$9,000	$6,075	$14,246
11	12.0	68	12	$2,625	$1,838	$4,098
12	13.0	68	12	$2,520	$1,764	$3,934
13	14.0	68	12	$2,087	$1,461	$3,258
14	15.0	68	12	$3,100	$2,170	$4,840
15	16.0	68	12	$5,600	$3,920	$8,742
16	17.0	68	12	$8,830	$6,181	$13,785
17	18.0	68	12	$3,084	$2,159	$4,815
18	19.0	69	11	$5,756	$4,173	$8,833
19	20.0	69	11	$4,400	$3,190	$6,752
20	21.0	69	11	$1,640	$1,189	$2,517
21	22.0	69	11	$8,000	$5,800	$12,276
22	23.0	69	11	$55,000	$39,875	$84,398
23	25.0	70	10	$7,277	$5,458	$11,003
24	26.0	70	10	$1,150	$863	$1,739
25	28.0	71	9	$1,407	$1,090	$2,111
26	29.0	71	9	$6,400	$4,960	$9,601
27	30.0	71	9	$3,068	$2,378	$4,602
28	31.0	71	9	$546	$423	$819
29	33.0	72	8	$5,350	$4,280	$7,838
30	34.0	72	8	$1,748	$1,398	$2,561
31	35.0	73	7	$35,000	$28,875	$48,634
32	36.0	73	7	$3,400	$2,805	$4,724
33	37.0	73	7	$1,220	$1,007	$1,695
34	38.0	73	7	$4,124	$3,402	$5,730
35	39.0	73	7	$3,139	$2,590	$4,362
36	40.0	73	7	$4,487	$3,702	$6,235
37	41.0	74	6	$5,329	$4,530	$6,983
38	42.0	74	6	$2,356	$2,003	$3,087
39	43.0	74	6	$4,763	$4,049	$6,241
40	44.0	74	6	$5,165	$4,390	$6,768
41	45.0	74	6	$5,990	$5,092	$7,849
42	46.0	74	6	$234	$199	$307
43	47.0	74	6	$1,354	$1,151	$1,774
44	48.0	74	6	$3,300	$2,805	$4,324
45	49.0	75	5	$4,540	$3,973	$5,820
46	50.0	75	5	$9,000	$7,875	$11,538
47	51.0	75	5	$34,000	$29,750	$43,588
48	52.0	75	5	$728	$637	$933
49	53.0	75	5	$5,750	$5,031	$7,371
50	54.0	75	5	$2,250	$1,969	$2,884
51	55.0	75	5	$44,416	$38,864	$56,941
52	56.0	75	5	$1,198	$1,048	$1,536
53	57.0	75	5	$130,000	$113,750	$166,660
54	58.0	75	5	$5,760	$5,040	$7,384
55	59.0	75	5	$5,920	$5,180	$7,589
56	60.0	75	5	$6,730	$5,889	$8,628
57	61.0	75	5	$4,835	$4,231	$6,198
58	62.0	75	5	$2,402	$2,102	$3,079
59	63.0	75	5	$9,669	$8,460	$12,396
60	64.0	75	5	$994	$870	$1,274
61	65.0	75	5	$1,150	$1,006	$1,474
62	66.0	76	4	$2,225	$2,003	$2,772
63	67.0	76	4	$5,800	$5,220	$7,226
64	68.0	77	3	$6,030	$5,578	$7,195
65	69.0	77	3	$3,259	$3,015	$3,889
66	70.0	77	3	$4,368	$4,040	$5,212
67	71.0	77	3	$2,718	$2,514	$3,243
68	72.0	77	3	$4,082	$3,776	$4,871
69	73.0	77	3	$4,731	$4,376	$5,645
70	74.0	77	3	$16,120	$14,911	$19,235

Table 3-16 (Cont'd)

#	ID	YEAR OF APPROVAL	AGE	ORIGINAL COST	DEPRECIATED VALUE	INFLATED VALUE
71	76.0	78	2	$3,000	$2,850	$3,389
72	77.0	78	2	$3,229	$3,068	$3,648
73	79.0	78	2	$4,710	$4,475	$5,321
74	80.0	78	2	$75,000	$71,250	$84,728
75	81.0	78	2	$5,092	$4,837	$5,752
76	82.0	78	2	$525	$499	$593
77	83.0	78	2	$6,706	$6,371	$7,576
78	84.0	78	2	$2,797	$2,657	$3,160
79	85.0	78	2	$2,900	$2,755	$3,276
80	86.0	78	2	$9,240	$8,778	$10,438
81	87.0	78	2	$1,145	$1,088	$1,294
82	88.0	78	2	$3,000	$2,850	$3,389
83	90.0	78	2	$6,330	$6,014	$7,151
84	91.0	79	1	$9,890	$9,643	$10,524
85	93.0	79	1	$3,270	$3,188	$3,479
86	94.0	79	1	$6,185	$6,030	$6,581
87	95.0	79	1	$1,746	$1,702	$1,858
88	96.0	79	1	$6,689	$6,522	$7,117
89	97.0	79	1	$4,200	$4,095	$4,469
90	98.0	79	1	$19,000	$18,525	$20,217
91	99.0	79	1	$65,000	$63,375	$69,164
92	100.0	79	1	$3,515	$3,427	$3,740
93	101.0	79	1	$5,996	$5,846	$6,380
94	102.0	79	1	$5,900	$5,753	$6,278
95	103.0	79	1	$33,000	$32,175	$35,114
96	103.5	79	1	$30,000	$29,250	$31,922
97	104.0	80		$1,499	$1,499	$1,499
98	105.0	80		$3,107	$3,107	$3,107
99	106.0	80		$3,500	$3,500	$3,500
100	107.0	80		$12,000	$12,000	$12,000
101	108.0	80		$6,267	$6,267	$6,267
102	109.0	80		$770	$770	$770
103	110.0	80		$1,662	$1,662	$1,662
104	111.0	80		$4,271	$4,271	$4,271
105	112.0	80		$13,316	$13,316	$13,316
106	113.0	80		$1,300	$1,300	$1,300
107	114.0	80		$4,246	$4,246	$4,246
108	115.0	80		$6,900	$6,900	$6,900
109	116.0	80		$4,038	$4,038	$4,038
110	117.0	80		$61,439	$61,439	$61,439
TOTALS=.....				$1,208,576	$1,002,934	$1,530,738

NUMBER OF DEVELOPMENTS=	110
DEVELOPMENTS WITH DWELLING UNITS=	96
TOTAL DWELLING UNITS=	15,224

FINANCING	NUMBER OF DEVELOPMENTS	1981 VALUE	DWELLING UNITS
MHFA	32	$200,210	4,580
MHFA AND FHA/HUD	2	$5,247	181
MHFA AND PRIVATE	7	$35,730	832
FHA/HUD	48	$328,025	7,773
PRIVATE	18	$878,939	2,681
PRIVATE AND OTHER TYPES	1	$14,246	0
ALL OTHER TYPES	2	$68,339	97

TYPE	NUMBER OF DEVELOPMENTS	1981 VALUE	DWELLING UNITS
NEW RESIDENTIAL	65	$342,051	8,832
REHABILITATED RESIDENTIAL	12	$50,583	1,279
NEW COMMERCIAL	7	$233,915	0
REHABILITATED COMMERCIAL	1	$61,439	0
RESIDENTIAL/COMMERCIAL	20	$551,747	5,113
OTHER	5	$291,000	0

Table 3-17

FANEUIL HALL MARKETPLACE:
THE DIFFERENTIAL IN CITY AND STATE TAX YIELD

215,000 sq. ft. retail space
170,000 sq. ft. office space

Retail sales $57,500,000

860 retail workers
850 office workers

Sales Tax*:	$2,300,000
Corporate Income Tax:	1,788,000
Rouse Corporate Income Tax:	113,362
Income Tax:	897,000
Total Annual Estimated State Yield =	$5,098,362
Total Annual Estimated City Yield =	$1,417,031

City is 20% Yield of State (in Quincy Building).
City is 31% Yield of State (in South Building).
City is 32% Yield of State (in North Building).

City is 28% Yield of State (Total Complex).

Source: Boston Redevelopment Authority, Faneuil Hall Marketplace: The Differential in City and State Tax Yield, September 1978.

TAX YIELD:
HOTEL DEVELOPMENT, UNDERWAY AND PLANNED

I. Annual Tax Yield to Boston and the State

Completed Project

Boston	$4,919,227	Payment in-lieu-of Taxe
State	$5,518,634	Room Tax
	2,589,067	Meals Tax
	1,789,875	Income Tax
	2,660,000	Corporate Tax
	4,962,378	Guest Sales Tax
	$17,519,954	Total Annual State Reve

Construction Phase

State	$6,772,500	Construction Income Tax
	3,885,000	Construction Sales Tax
	$10,657,500	Construction Phase Stat

II. Hotel Development Tax Yield - Derivation

City - Payment in-lieu-of Taxes

5,000	Rooms
$70	Average Room Rate
.76	Occupancy Rate
365	Days
$97,090,000	Room Revenue
$51,781,335	Food and Beverage Revenue
$148,871,335	Total Revenue
$3,883,600	4% Rooms
1,035,627	2% Food and Beverage
$4,919,227	Annual City Yield 1985

State - Room Tax

5,000	Rooms
$97,090,000	Room Sales
.057	Hotel Occupancy Tax
$ 5,518,634	Room Tax Yield

State - Income Tax

5,000	Rooms
1.5	Rooms per worker
3,330	Employees
$10,000	Average Annual Salary
$33,300,000	Payroll
.05375	Income Tax Rate
$1,789,875	Annual Income Tax Yield

Table 3-18 (cont'd)

Meals Tax

5,000	Rooms
$51,781,335	Food and Beverage Sales
.05	Meals Tax
$2,589,067	Meals Tax Yield

Construction Employees Income Tax

5,000	Rooms
$80,000	Per Room Development Cost
.70	Percent Construction Cost
$280,000,000	Total Building Cost
.45	Percent Labor Cost
$126,000,000	Construction Payroll
.05375	State Income Tax
$6,772,500	Construction Income Tax

Construction Materials Tax

$280,000,000	Construction Cost
- 126,000,000	Labor Cost
$154,000,000	Construction Materials
.50	In-state Purchases %
$77,000,000	In-state Materials
.05	State Sales/Materials Tax
$ 3,885,000	Construction Sales Tax Yield

Corporate Income Tax

$280,000,000	Construction Cost
.60	Construction Percent Development
$400,000,000	Development Cost
.40	Percent Equity
$186,666,667	Equity
.15	Percent Return on Income
$28,000,000	Net Corporate Income
.095	Corporate Income Tax Rate
$ 2,660,000	Corporate Income Tax

Guests Purchases, Sales Tax

$97,090,000	Room Sales
$51,781,355	Food and Beverage Sales
$148,871,335	Guest Room and Food Sales
.60	Food and Room as % Total Sales
$248,118,888	Total Purchases
- 148,871,335	Less Food and Room
$99,247,553	Other Guest Sales
.05	Sales Tax Rate
$ 4,962,378	Sales Tax Revenue, Guests

Source: Boston Redevelopment Authority, Impact of the Boston Capital Construction Freeze on Jobs and Tax Revenue, April 1981, Table 19.

Table 3-19

SUMMARY:
TAX YIELD FROM DEVELOPMENT PROJECTS UNDERWAY AND PLANNED

Development Sector	Annual Tax Return	Return during Construction (Total-All Years)
Office	$ 53,237,875	$ 11,950,313
Hotel	22,439,181	10,657,500
Retail	8,583,615	2,336,950
Industrial	12,278,237	4,017,961
Housing	4,955,662	5,817,412
All Other	6,426,180	84,057,295
Total	$107,920,750	$118,837,431

Type of Tax	Annual Tax Return	Return during Construction (Total-All Years)	Revenue Receiver
Property Tax	$ 35,444,989	-	City
Income Tax	34,817,101	$ 75,746,340	State
Sales Tax	10,097,379	43,091,091	State
Hotel Tax	5,518,634	-	State
Meals Tax	4,705,267	-	State
Corporate Tax	16,986,380	-	State
Property Excise Tax	351,000	-	State
Total	$107,920,750	$118,837,431	-

Source: Ibid., Table 14.

Table 3-20

BOSTON'S NET ADDITIONAL REVENUE REQUIREMENTS, FY83

		Low	High
I. Impact of "2½"			
Tax Levy Cutback			
FY82 & Projected FY83 (Millions)	$154		
Less Added State Aid (Millions)	- 83		
Net FY82 & FY83 Replacement (Millions)	71	71	71
Projected FY84 and Beyond			
Levy Allowed:			
2.5% of $10-$14 Billion			
= $250-$350 Million			
Projected FY83 Levy of			
$374 Million Less:			
$350 Million	24	24	
$250 Million	124		124
Total "2½" Related Needs		95	195
II. Impact of Federal Cutbacks			
FY82 Reduction (Millions)	-$52		
FY83 Projected (Millions)	- 20		
Replacement Need		72	72
III. Public Improvements			
Indebtedness Funding (Millions)		10	15
IV. Growth in Fixed Charges for			
State Assessments & Pensions (Millions)		10	15
V. Inflation Factor FY82 & FY83			
Municipal Expenditures			
$900 Million FY82			
Inflation FY82 & 7%			
FY83 & 7%			
Added Revenue Requirement		126	126
Total Net Added Revenue Needs (Millions)		$313	$423

Table 3-21

STATE REVENUE RAISED IN BOSTON
FISCAL YEAR 1983 (PROJECTED)
(Millions of Dollars)

	State Tax Revenue	Share Raised in Boston	
		Percent	Amount
I. State Individual, Corporate, & Bank Income Tax[1]	$3,386		
City Share of State Gross Product[2]		21%	
Estimated State Income Tax Revenue Raised in Boston			$718
II. State Sales & Related Taxes Raised[1]	$1,643		
City Share of Sales Tax[3]		10%	
Estimated State Sales & Related Taxes Raised in Boston			$164
III. Total State Revenue[1]	$5,029		
City Share of State Revenue Raised[4]		18%	
Estimated State Revenue Raised in Boston[4]			$882

Sources:
1 Massachusetts Taxpayers Foundation, State Budget Trends, 1974-1983.
2 See Tables 2-17 for City Gross Product, and Federal Reserve Bank of Boston Estimates of Massachusetts State Gross Product (both for 1980).
3 U.S. Bureau of the Census, Massachusetts 1977 Census of Retail Trade.
4 Estimated, BRA Research Department.

4. THE EVOLUTION OF PROPERTY TAX ADMINISTRATION IN MASSACHUSETTS

Summary

A role for the property tax in financing municipal government in Massachusetts and rules governing its administration have been established for almost as long as this country's independence from England. We have seen in the previous chapters that its role has been slowly changing through the decades of the sixties and seventies with the state's assumption of some fiscal responsibilities (welfare, county court costs) and an expanded program of appropriated state aid to localities. The property tax reduction and limitation measure passed by referendum in November 1980, known as "Proposition 2½" has dramatically changed that role and is stimulating a number of further, counterbalancing changes in state and local revenue structures.

The rules for property tax administration in Massachusetts have undergone significant changes also. In fact, these changes in rules have been a major factor in stimulating changes in role. The legal and administrative history of property tax implementation in Massachusetts is the topic of this chapter. We will examine estimates of compliance impacts in the next chapter.

From 1786 until 1978, state law required uniform full value assessment for all taxable property and further required that each of the 351 taxing jurisdictions apply a common rate to all full value assessments on their rolls. This was commonly termed "100% valuation". By 1960 this rule was observed largely in the breech and a series of court cases finally resulted in an era of enforcement beginning in 1974. While this was a triumph of order over chaos in a legal sense, it raised great havoc among taxpayers, administrators, and elected officials.

Massachusetts' response was the adoption of an amendment to the state constitution in 1978. This "classification" amendment allowed different tax treatment for different classes or types of property. Initial legislation defining the classes and a schedule for differential treatment was replaced with a new set of flexible rules in 1979. The two factors of court-ordered equalization (equal property tax treatment under the law) and classification (a law generally regarded as economically and politically acceptable) are leading Massachusetts to the realization of property tax administration standards not seen here previously in modern times.

A related area of recent major change is the issue of relief (refund or abatement) to be granted to taxpayers illegally overcharged because their recorded taxable values were overstated. It is not surprising that a state which found enforcement of legal property tax administation standards so difficult should also have trouble in granting justice to individual aggrieved taxpayers. A 1965 court decision, affirmed by later judgments, recognized that standards of fairness were to be found in what a jurisdiction practiced (fractional valuation) rather than in what everyone preached (100% valuation). What seemed a minor point in the 1965 decision surfaced as a multi-million dollar issue in 1979 when the courts affirmed that the standard of fairness for calculating refunds should be the level of taxation enjoyed by the "most favored class" rather than a jurisdiction's average valuation level. This was changed by legislation a year later and is now undergoing further change through the implementation of equalization and classification.

The monetary implications of these changes are as great as the length of time and the amount of controversy attending this drama. The impact of legal compliance was seen as severe enough to cause concern over the effects of tax shifts on property values as well as homeowners' incomes. While statewide assessing performance was best described as erratic, a number of systematic biases could be seen. Commercial and industrial assessed values were generally higher proportions of market value than were residential assessments, and single family homes were more favored than apartments. De facto classification was practiced long before its legalization. These problems have been greater in large older cities than in smaller towns. Studies of Boston found old commercial properties taxed higher than new, and documented patterns of unequal treatment among residential properties that followed both value level and neighborhood lines. The reconciliation of rule and reality would have more than doubled many tax bills and halved many others under the old standard of 100% valuation.

A Legal History of Massachusetts Assessing Standards[1]

Article IV of Chapter 1 of the second part of the Massachusetts Constitution established authority to "impose and levy proportional and reasonable assessments, rates, and taxes, upon all the inhabitants of, and persons resident, and estates lying within said Commonwealth" (emphasis added). Legislation in 1786 required assessors to "make a fair cash valuation of all the estate, real and personal, subject to taxation"[2] and a 1959 court case[3] affirmed that this did indeed mean that all property was to be assessed equally at full market value.

The law may have been clear by this time, but its enforcement was not. Neither the 1959 case nor a nearly identical one the following

year[4] resulted in any assessing improvements or relief for complaining taxpayers. The court prescribed an effective general remedy in 1961 in Bettigole vs. Assessors of Springfield but the effect was not felt very widely, nor did it last very long. Here it was stipulated that the Springfield assessor first found the full value of each taxable parcel and then multiplied each by a different fraction for each of six administratively established classes of property. The court ordered Springfield to skip this last step, use the full values, and calculate a new tax rate. The following figures show that Springfield assessments were brought to an average very near full value and that a high degree of accuracy for individual properties was subsequently attained. But by 1966 inflation and inaction were reducing average assessments to well below the 100 percent full value level and by 1971 dispersion of individual assessment from the average level had moved from excellent to fair on the way to poor.

Assessment/Market Value Ratios in Springfield, Massachusetts[5]

	Mean Ratio	Coefficient Of Dispersion[6]
1961	90%	26.2
1966	72	8.8
1971	58.2	14.9
1976	52.1	38.2

Although Bettigole is a landmark in Massachusetts property tax history, it did little to change the future course of that history. It applied only to one very special case and neither ordered general compliance throughout the state nor set precedent for compliance orders in more difficult situations where the assessors did not have a good

knowledge of property market values. These limitations were made clear in Leto vs. Board of Assessors (Wilmington, Mass. 1964) where the plaintiff failed to attain an order for general revaluation. While the town did revalue commercial and industrial properties (about 20 percent of their tax base) they were not ordered to complete the task since their assessing errors were not shown to be intentional (as in Springfield) nor was "equitable relief shown to be practical". Ineptitude served as a partial defense. Two later cases[7] backed off from this restrictive view and at least led to plans and promises of general revaluation. Even so, their scope was limited. It was not until 1974 that a very different sort of case led to a mechanism for enforcement of statewide compliance.

Town of Sudbury vs. Commissioner of Corporations and Taxation (1974) was unique and of wide significance. Rather than an individual taxpayer complaining of harm due to one town's failure to assess properly, here a town claimed harm due to the failure of a state agency to enforce compliance in every community in Massachusetts. Much state aid to cities and towns was (and still is) distributed on the basis of relative tax base wealth. The state Department of Corporations and Taxation makes periodic estimates of each locality's full market value tax base called "equalized value". A low estimate leads to more state aid and a high estimate to less. Sudbury had recently equalized their assessments at full value and this was reflected in a higher equalized value estimate. The "residents, taxpayers, and officials" of Sudbury claimed that they were being discriminated against and were getting less than their fair share of state aid because equalized value estimates for communities assessing at less than full value were too low. Improved

estimating procedures could have (and have in fact) somewhat alleviated this inequity, but Sudbury chose another course. They insisted that the problem would not be satisfactorily resolved until all 351 Massachusetts cities and towns established and maintained full market value assessments, so that their tax rolls properly represented their true tax base. The Commissioner of Corporations and Taxation, named as defendent in this suit, had long had the power to inspect the work of assessors and "require of them such action as will tend to produce uniformity throughout the commonwealth in valuation and assessments"[8], superceding them if they "fail to perform their duties".[9] Now the state Supreme Judicial Court ordered the Commissioner to exercise these powers, enforce 100 percent valuation, throughout the state and report progress to the Court.

More than state aid distribution was at stake in the Sudbury case. Sudbury's remedy required that cities and towns accurately report their full aggregate tax base of market value. The court's order, however, called for the total value of taxable property to be arrived at by assessing <u>each</u> property at full value. We will see that fractional valuation in Massachusetts was just the average result of widespread patterns of de facto classification. Different types of realty were assessed, on average, at different fractions of market value. The Sudbury order demanded that cities and towns make major shifts in the proportion of total taxes paid by different classes of property and make further shifts within classes. This prospect was viewed with alarm by homeowners who stood to suffer higher tax bills and by officials who knew that homeowners and voters were usually one and the same.

The Sudbury First Progress Report was filed on February 27, 1976. Of the 351 communities, only 126 (36 percent) had submitted plans which the Commission approved, 54 (15 percent) more had received conditional approval and 67 (19 percent) were approved subject to affirmative local action, such as appropriation of necessary funds. On the other hand, 76 communities (22 percent), including two-thirds of the cities in the state, had either no plan at all, or had their plan rejected by the Commissioner. The remaining 28 communities (8 percent) had submitted, or resubmitted, plans too late for evaluation in the report.[10] Boston's plan, calling for the use of income capitalization techniques for all properties, including single family homes, was among those rejected.

Early progress was slow and was achieved mainly by smaller towns where tax shifting promised to be less severe. In Fiscal Year 1977 only 56 communities had average assessment/value ratios at or above eighty percent and were not necessarily equalized. In FY78, 47 smaller towns revalued and by FY80 79 were at 100 percent and another 75 had aggregate ratios between 80 percent and 99 percent.[11] The effects of revaluation in some of these municipalities served to strengthen resistence in the holdouts. Not until the legalization of differential taxation by class in 1978 did the tide turn toward orderly assessment by rule.

Taxpayers and the Law: A History of Overcharge Litigation

The legal recourse of individual taxpayers seeking compensation for property tax overcharges parallels the murky history of uniform assessment enforcement. An active role for the courts was established in the mid-sixties but the dust did not settle to reveal clear and

explicit procedures until after judicial and legislative action, 1979-1981.

Prior to 1965, Massachusetts case law refused to acknowledge the reality of fractional assessment. A taxpayer seeking a lower assessment and partial refund of taxes paid (called an "abatement") due to an assessed value that was higher than a jurisdiction's average fraction of market value had to prove assessment at more than full value.[12] A taxpayer whose property was assessed at 90 percent of its actual value in a town where other assessments were at 45 percent would have been burdened with a real or "effective" tax rate twice as high as others and would have had no legal means to force adjustment. Then in Shoppers' World, Inc. vs. Board of Assessors of Framingham (1965) the state Supreme Judicial Court ordered an abatement reducing the subject property's assessed value to the common fractional ratio after finding a "policy or scheme of valuing properties or classes of property at a lower percentage of fair cash value than that percentage in fact applied to the taxpayer's own property." Recognition of fractional valuation was reinforced in the 1974 case Board of Assessors of Lynn vs. Shop-Lease Co. where the justices prescribed the use of effective (with respect to market value) rather than nominal (with respect to fractional assessed value) tax rates in calculating market value by income capitalization methods.

Massachusetts' most significant property tax disproportionment case may be Tregor vs. Board of Assessors of Boston, filed at the Appellate Tax Board in 1977 and decided by the Supreme Judicial Court in 1979. A taxpayer wishing to challenge a property tax bill on the grounds of over-assessment begins by applying for an abatement with the local

assessor. If this application is rejected the taxpayer may proceed to the city or town Board of Review. Failing here, the next and usually last step is the state Appellate Tax Board. This Board had not decided a Boston case in some years. Because of the time and technical complexities involved, most appellants had been willing to settle with the City out of court. In the meantime, a considerable backlog of undecided Boston cases was building up (over $300 million of total tax bills may have been in dispute) and the Tregor case surfaced as the one to resolve technicalities and establish legal and administrative precedent. The major issue contested in this case was the choice of the standard of fair assessment to be used in calculating taxpayer refunds (abatements). The alternatives were "lowest class ratio" and "average ratio" and the arguments went back to footnote ten of the 1965 Shoppers' World case.

The Shoppers' World footnote seemed to sanction the lowest class approach. This means that the standard for fair taxation would be the taxes that would have been paid if a property were assessed at the average level (assessed value to market value ratio) enjoyed by the most favored (lowest ratio) substantial class. Taxes that had been paid above this amount would have to be abated by the City. Boston, on the other hand, argued for the "average ratio" standard. Under this rule, refunds would equal the difference between taxes actually paid and the taxes that would have been paid if the property had been assessed at the city-wide average assessment to market value ratio. The City noted that if all property were legally assessed at full market value, then tax bills would have been those calculated under the average ratio rule and that this was, therefore, the best standard of fairness. In order to

better concentrate on the legal issue involved, both parties stipulated that the factual question of what these ratios actually were would be satisfied by accepting the state's official 1976 estimates. These official ratio estimates were 26.8 percent for single family homes, the lowest class, and 50.2 percent as the average assessment to value ratio for all taxable property. While the former ratio is about half of the latter, we will see that the cost to Boston promised to be over three times as great under the lowest class standard. The Board ruled for Tregor and lowest class and in 1979 the Supreme Judicial Court affirmed their decision.

The French case (1981) was an unsuccessful appeal by Boston to re-define "lowest class". The City argued that single family homes comprised too small a portion of the tax rolls to constitute the lowest substantial class. Instead, Boston claimed that "most favored class" should be determined by the average of all residential property assessments (one, two, three family homes and apartment buildings). The court ruled against Boston and single family homes continue to set the lowest class standard.

In the time intervening between the Tregor and French decisions the state legislature passed Chapter 797 of the Acts of 1979. The major purpose of this law was to replace the original 1978 property tax classification law with one that was more flexible (Classification is discussed in detail in Chapter 5). One section of this law took legislative initiative to change the "lowest class" rule established by case precedent. Section 10 stated that the municipal average assessment/value ratio was to be used in determining abatements to be granted in all cases pending before the Appellate Tax Board. Since some

pending cases had been filed in earlier years, this section would have had a retroactive effect. The constitutionality of this law was challenged in the Kenniston case (1980) and the court ruled that the law would stand, but may not be applied retroactively. The Supreme Judicial Court, noting that all Massachusetts communities were under order to remedy disproportionment through revaluation and equalization, placed a further limit on the advantage granted to cities and towns by this law. The court ruled that if a municipality fails to reassess all property at 100 percent of full market value by the end of Fiscal Year 1983 all abatement cases, filed in any year, would be determined at "most favored class." The following table summarizes the procedures established by the Tregor, French, and Kenniston cases and by Chapter 797 of 1979.

Fiscal Year Case Filed	Rule Established by	General Standard	Boston Ratio Standard*
1976-1977	Tregor-French	Single fam.-lowest class	26.8%
1978-1979	Tregor-French	Single fam.-lowest class	22.4%
1980-1981	Ch.797-Kenniston	Municipal average	34.1%
1982-1983	Ch.797-Kenniston	Municipal average	-
After 1983	Tregor-French-Kenniston-Ch.797	Single fam.-lowest class (all years!), or classification (if equalized)	-

* By court case stipulation and by law (Ch. 797, 1979) these ratios are those estimated by the State Department of Revenue biennially.

The Cost of "Tregor"

Considerable media attention was focused on the abatement litigation cases mentioned above. Much speculation concerned the total

liability that Boston would face under alternative rulings. In advancing its appeals against Tregor and French the City argued that unfavorable rulings would cost millions of dollars, induce fiscal stress, and be socially unjust to most taxpayers. The court was not persuaded by this "disaster scenario." Boston's own estimates of liability ranged from $75 million to $100 million until a Coopers and Lybrand audit in February, 1980 went as high as $150 million. The estimation of disproportionment litigation costs is not only difficult but also short lived, since new cases continually arise and old ones are settled under a changing schedule of rules. The Appellate Tax Board determines abatement award amounts case by case. Four factors, two property-specific and two general, affect this determination. The general factors are the concept of a standard for fair taxation (lowest class ratio, average ratio) and the factual body of data that sets the exact level for this standard. These are outlined in the preceding table. The property-specific factors are actual market value and assessed value for the year in question. These last two may be combined as the subject property's assessment to market value ratio.

Without marshalling the considerable data necessary for an actual estimation of liability, we can still illustrate the approximate magnitudes of money involved in the issues dealt with in the Tregor, French, and Kenniston cases and Chapter 797 (1979) legislation. Were the legal and administrative details of "lowest class" (single family or all residential) or "average ratio" really multi-million dollar questions? Before illustrating a response to this question we must make some assumptions where we are most ignorant. As of the end of June, 1980, there were approximately 6,500 Boston abatement cases pending

resolution. These spanned several years and we do not know the total amount of tax bills in dispute, but for this simple illustration we will see what would happen if $325 million in total tax bills were in dispute and all cases concerned Fiscal Years 1976 and 1977 bills. While findings of disputed properties' assessment to market value ratios are made case by case and vary widely, our illustration will assume that every property in question was assessed at 60 percent of its market value. To examine the City's liability under the three conceptual standards of single-family home ratio, all-residential ratio, and average ratio, we will use the ratio figures estimated by the state since these are the numbers actually applied. These official ratios change every two years, but we are figuring "as if" all cases were based in the same two year period (FY76-77). Finally, we can observe that the proportion of disputed taxes refunded by abatement is the excess of the subject property's assessment to value ratio over the "fair standard" ratio divided by the subject property's ratio. For example: imagine that the legal standard ratio were 25 percent and an appellant property's ratio were 50 percent. Intuitively, we can see that this property would pay twice the taxes that the court requires and so would get half of its tax payment back through abatement ((50%-25%)/50% = ½). Another example: if the legal standard ratio were 25 percent and the subject property's ratio were 40 percent, the appellant would get 37.5 percent of his tax payment back ((40%-25%)/40% = 37.5%).

Our simplifying assumptions let us treat all $325 million of assumed contested tax payments as if it represented one huge property assessed at sixty percent of its market value and seeking an abatement at the official FY76-77 ratios under the three alternative

"fair standard" concepts. The results of this illustration are summarized in the following table.

Illustration of Comparative Boston Abatement Liability Under Three Legal Standards

Conceptual Standard	Lowest Class (Single family)	Lowest Class (All residential)	City Average
Official Ratio	26.8%	38.7%	50.2%
% Tax Abated	55.3%	35.5%	16.3%
Liability	$179.8 million	$115.4 million	$53.1 million

Although this illustration does not pretend to be an accurate estimate, we can see that Boston's claim that an unfavorable ruling in the Tregor case could cost the City an additional $100 million was a serious concern and not a theatrical "disaster scenario".

De Facto Classification in Massachusetts Property Assessments

The histories of Massachusetts' legal assessing enforcement and disproportionment litigation reflect the administrative, economic, and political problems that cities and towns have faced in establishing and maintaining full value assessments under a single tax rate. The appraisal of real estate is always a difficult technical task and had been made more difficult due to the evolution of de facto classification patterns and the state's high reliance on property tax revenues.

Massachusetts assessed values have generally been less than full market value and, more importantly, the fraction of real value represented by assessments has tended to vary significantly among different classes of property. Single-family homes were typically assessed at lower fractions of market value than were other property types and multi-family residences were assessed lower than commercial

and industrial properties. Consequently, effective tax rates (property tax as a percent of market value) varied systematically among property classes, contrary to state law prior to the 1978 classification amendment. De facto classification had established itself in a haphazard way long before orderly classification by law was allowed.

The haphazard nature of de facto classification can be illustrated by the detailed Boston data (that will be reviewed shortly) showing patterns of assessment variance within classes and across neighborhoods, value levels, and property ages. Even within these detailed patterns, considerable variation is found among individual properties. The eratic nature of de facto classification in most Massachusetts communities can be inferred from its illegality. The court had found an easy remedy in the 1961 case Bettigole v. Assessors of Springfield where it was stipulated that the assessor first found the full value of each taxable parcel and then multiplied the full values by a different fraction for each of six administratively established classes of property. The court ordered Springfield to skip this last step, use the full values, and calculate a new tax rate and new bills. Where assessors were less efficient and did not know the full market values, the courts found remedy more difficult. Inefficient de facto classification was more secure against court intervention.

While imprecise, de facto classification was strongly entrenched, and equalization to a unified effective tax rate promised to shift relative tax burdens significantly in Massachusetts communities. Coupled with the high levies prevalent in property-tax-dependent cities and towns, this tax shifting would mean a big dollar difference in tax bills due to equalization. Homeowners would pay more and commerce and

industry less. The experience of communities that underwent revaluation in the decades of the sixties and seventies affirmed this fear.

Equalization in Worcester and Woburn[13]

In November, 1971, a debate was begun in Worcester over assessed values of real estate in that city. Two neighboring homeowners noted that their houses were assessed at different fractions of recent sales prices (57 percent and 43 percent). This prompted them to undertake a study including 154 other properties, which showed a wide variation in assessment to sales price ratios, mostly lower than their own. Pressing a court suit, they obtained a ruling ordering Worcester to revalue all real estate in the city at full and fair cash value by January 1, 1974. The court rejected a plan subsequently submitted by Worcester, appointed a master to oversee revaluation, and granted a one-year extension for compliance. An outside appraisal firm was selected on the basis of a $590,000 bid and began work in May, 1973.

In February of 1975, appraisals were complete and were mailed out to Worcester's property owners, along with an estimate of the new tax rate. Public reaction was strong and immediate. Some 14,000 property owners (about 35 percent) demanded to appeal their valuations. While the estimated new tax rate included a fourteen percent levy hike, preliminary homeowner tax bills showed generally steeper increases. A sample of thirteen small residential parcels experienced proposed increases of 24.4 percent to 300 percent, averaging 104.7 percent. The two neighbors who initiated the court suit were scheduled for 24.4 percent and 27.3 percent tax increases, indicating that they had been over-assessed relative to other homes, but under-assessed relative to business property. Seven commercial and industrial parcels sampled were

due for tax cuts ranging from 13.9 percent to 40.4 percent and averaging 28.3 percent.

Responding to Worcester homeowner reactions and the great number of appeals, the presiding judge granted an additional extension to January 1, 1976. A series of further extensions were allowed, the last until January 1, 1979 so that the outcome of the classification amendment vote could be determined.

A 1973 suit brought by members of the Woburn business community led to an order that the city revalue all property by July 1, 1975. An outside firm was hired for $210,000 and accomplished much of the task before withdrawing in August of 1975 due to financial problems. An extension was granted and the work was completed in June, 1976 by another firm. Appeals were relatively light, with seventeen percent of residential property owners and eighteen percent of commercial and industrial property owners contesting the new appraisals.

On September 20, 1977, after all appeals were settled and the final assessed value of the city was determined, the Mayor announced a new tax rate that included a 41 percent levy increase. The increase consisted of a $2.9 million rise in the non-school municipal budget, an additional $2.4 million for schools, and $1 million to cover expected settlements granted by the State Appellate Tax Board. The composite effect of this levy increase and equalization was a 93 percent tax rise for single-family homes and a 5.5 percent rise for business property. Sorting out the independent effects of levy and assessment changes, it can be seen that the levy hike alone would have raised all tax bills by 41 percent and equalization alone would have increased homeowner bills by 37 percent and lowered business bills 25.2 percent.[14]

Eighteen seats were contested in the following year's election. Seven incumbents retired before the election, five were defeated, five kept office and one moved to a higher position. The Mayor, who had been elected in 1975 with 82 percent of the vote, was among those who retired.

Anticipating the End of De Facto Classification

Of Massachusetts' 351 municipalities, 103 had assessment to sales ratios greater than ninety percent and/or were judged by the Tax Commissioner to be in compliance with the Sudbury order by the end of Fiscal Year 1978. Only one (Brockton) had a population greater than 50,000. Seventy-two (70 percent) had populations of less than 10,000. Communities that had revalued generally had low overall property tax burdens and had small commercial and industrial bases, so that the magnitude and degree of tax shifting due to equalization were small. The end of de facto classification in the state's other cities and towns, including Boston, promised to be more severe. The anticipated tax bill changes were so great in some cities that the authors of two reports on the statewide impact[15] and two on Boston[16] explored the possibility of resulting property value changes, called tax capitalization.[17] It was thought that large tax changes could have such an impact on the affordability of housing and the profitability of business property that property market values would go down or up to balance property tax increases and decreases. A later study[18] of homes in some revalued Massachusetts communities offered evidence that this was actually happening.

Less than half a year after the court's demand for equalization enforcement in the Sudbury decision, the Federal Reserve Bank of Boston

published The Statewide Impact of Full Property Revaluation in Massachusetts by Professor William C. Wheaton of the Massachusetts Institute of Technology. Using 1974 state estimates of cities' and towns' taxable market values, Wheaton investigated the tax shifts that 100 percent valuation equalization would cause among property classes, consequent property value changes, and changes in state education aid distributions based on relative tax base wealth. Of 257 communities examined, 250 were projected to experience residential tax bill increases. Weighted statewide impacts were estimated as a 16.3 percent increase in residential payments, with reductions of 23 percent, 12 percent, and 32 percent for industrial, commercial, and "personal" (mainly utility) property respectively. Since higher (lower) tax bills could reduce (raise) property values, assessments that anticipated tax capitalization value changes would result in more moderate tax shifts:

Equalization Tax Shifts Estimated by Prof. Wheaton (1974 Data)

	Industrial	Commercial	Residential	Personal
Before Tax Capitalization	-23%	-12%	+16.3%	-32%
After Tax Capitalization	-14.2	- 7.7	+10.3	-21

Wheaton emphasized that these state averages concealed great diversity and that "in almost all cases it is the larger, older, industrial cities and towns that are most affected by revaluation". Residential property taxes in Boston were estimated to increrase by 36 percent before the moderating effects of tax capitalization and assessment adjustment.

In June of 1978, five months before the state election on the property tax classification amendment to the constitution, the

Massachusetts Mayors' Association released the study Estimating the Impact of 100% Valuation and Taxation by Classification in Massachusetts: Part I. Written by University of Massachusetts Professor Raymond G. Torto, who was then serving as special tax policy advisor to Boston Mayor Kevin H. White, this paper presented estimates of tax shifting that would attend equalization, based on 1978 state value figures. A participant in the Tax Policy Analysis and Planning Study Effort, Torto reported preliminary results of the analysis found in the next chapter of the present volume. Torto confirmed and expanded upon the warning issued earlier by Wheaton: The end of de facto classification through tax equalization across all classes of property would significantly increase Massachusetts residential tax bills. Residential taxes were projected to rise by an average of fifteen percent while commercial and industrial taxes would fall by nineteen percent and thirty percent, resepectively. In communities having population of 50,000 or more, average residential taxes would increase by 23 percent and single family homes would suffer a 35 percent rise in tax bills. Again, the likelihood of tax capitalization was suggested as a force that might moderate tax shifts by a more costly level of capital value shifts.

By the Autumn of 1978, with the tax classification vote approaching, Massachusetts residents generally shared a widespread, if inexact, fear that the end of de facto classification would mean higher taxes on housing and lower disposable incomes if full tax equalization were to supplant it. Tables 4-1 and 4-2 show that this fear was well founded. As Wheaton and Torto had pointed out, de facto classification was pervasive, although erratic; and it was most serious in the larger

municipalities where taxes were higher and where most of the state's population resided. In the two largest population groups (over 50,000 and 25,000-50,000) commercial properties were on average assessed at levels one-fifth to one-quarter above jurisdiction averages and industrial properties were at levels one-quarter to over forty percent above average levels. These same communities depended on commerce and industry for higher proportions of their tax bases, assuring that the degree of tax shifting would be greatest here. The fact that their market value tax rates were also greater meant that the dollar changes in tax bills would be most severe in the larger municipalities, where 63 percent of the state's residents lived. Even in the two smallest population groups (10,000-25,000 and under 10,000), representing 37 percent of the state population but 81 percent of its communities, small residential properties were assessed below average and commercial, industrial, and personal (mainly utilities) significantly above average. With 72 of its 203 towns (35 percent) officially or apparently equalized, the smallest jurisdictions on average taxed commercial property 13 percent, industrial 31 percent, and utility 25 percent more than single-family homes. The classification issue was not as strong here, however, since the overassessed business classes were small proportions of the overall tax base, and single-family homes, accounting for two thirds of the aggregate market value tax base, were assessed just slightly below the average percent of value.

Apartments (four or more dwelling units) were overassessed in all population groups but always below commercial, industrial, and personal property. Only in the largest jurisdictions were they assessed at

fractions of market value much above those for single-family homes, and only here were they a significant tax base component (nine percent).

Class Disparities in Boston Assessments

The problems of high effective tax rates, large proportions of commercial property relative to homes, and de facto classification have been more severe in Massachusetts' larger cities, and they have been most severe in its largest city, Boston. The capitol city's full market value tax rate was seven and a half percent by the end of Fiscal Year 1978 (June), compared to a five percent average for the twenty-one other cities with over 50,000 population, and three percent for the 329 smaller cities and towns. Boston's commercial, industrial, and personal property represented 44.4 percent of the City's market value tax base, while the average for the other large cities was 24.5 percent, and was 19.4 percent for the rest of the state. One-, two-, and three-family homes comprised only 35.4 percent of Boston's real tax base, compared to 66.4 percent for the entire state. Both conditions of tax level and tax base structure serve to magnify the consequences of de facto classification.

Class disparities in Boston assessments can be seen in Table 4-3. The average fractions of market value at which different classes of property were assessed ranged widely about the citywide ratio of 29.7 percent. Conventional single-family homes were assessed at 15.5 percent of value, just over half the general level, while personal property (largely utility equipment) was assessed at 52.4 percent. Commercial property, representing over a third of the assessed value tax base, was taxed, on average, at over twice the market value rate borne by homeowners and two-thirds again higher than the City average.

Assessment to market value ratios rose steadily across categories from single-family homes through two-family dwellings and condominium units to three-family homes. The average three-family home was assessed at over half again the one-family fraction, but still one-fifth below the City average for all property. Apartments were assessed higher than the City average but lower than commercial or industrial realty.

Five months before the November, 1978 classification vote, Boston's de facto classification departed farther from the prevailing "100 percent valuation" rule than the average large Massachusetts city; and its fiscal and tax base structures assured that the large proportional tax shifts that would result from assessing compliance would be magnified into major dollar losses for homeowners, and gains for commercial, industrial, and utility taxpayers. Overall residential assessments stood one-fourth below the average for all property and non-residential assessments were over one-fifth above average.

While the practical significance of these patterns was greater at this time due to the assessment uniformity enforcement begun with the 1974 Sudbury decision, de facto classification in Boston had been known and documented for years. Basing their analysis on five years (1960-1964) of sales data, Aaron and Oldman concluded that: "The evidence....is overwhelming that different kinds of real property are treated differently within the Boston property tax jurisdiction." ("Assessment Sales Ratios under the Boston Property Tax," National Tax Journal, March 1965). The 47 percent average ratio they found for Boston realty was comprised of single-family homes at 34 percent (over a quarter below average), two-family homes at 41 percent, apartments at 58

percent, and commercial properties assessed, on average, at 79 percent (two-thirds again higher than average) of market value.

Holland and Oldman, in "Estimating the Impact of Full Value Assessment on Taxes and Value of Real Estate in Boston" (Boston Urban Observatory, 1974) report patterns of class assessment disparities similar to those we have found. For 1972 they arrived at an assessment to sales ratio for non-residential property (excluding personalty and vacant land) that was 123 percent of the all-class average ratio. We find non-residential property assessed at 122 percent of the average level. Holland and Oldman reported a residential ratio that was 83 percent of the City average while our figures indicate that it was 74 percent of the average ratio six years later, in 1978.

Neighborhood Disparities in Boston Assessments

Boston's geographic assessment disparities among properties of the same type have been as pronounced and as long-lived as de facto classification. The changing patterns of regional dispersion reflect aspects of both the haphazard and systematic nature of past assessing performance.

Table 4-4 shows that in 1975, Boston's one-, two-, and three-family homes were assessed at fractions of market value differing by as much as a factor of three among properties of the same type in the City's 22 wards. A map of these wards is presented in Chart 4-1. Single-family homes in East Boston, Charlestown, and Back Bay-South End were assessed, on average, at less than seventeen percent while homes in four wards of Dorchester and Roxbury had average ratios above thirty percent. The average three-decker in Dorchester's Ward 14 was assessed and taxed at rates 220 percent higher than three-family homes in Charlestown. In

general, the downtown and close-in neighborhoods had the lowest ratios and the "middle wards" of Roxbury and Dorchester had the highest, with the suburban residential neighborhoods in between. The table also indicates that areas of lower-priced housing tend to be assessed at higher fractions of value. Overall, the average ratio within each of these three types of small residential properties in the 22 wards differed an average of 26 to 29 percent from the citywide class ratios.[19]

Aaron and Oldman (op. cit.) had observed these regional assessment differences in their study of early 1960s' sales data. They state: "One region, Roxbury, is clearly the most heavily assessed, while four others, East Boston, Hyde Park, Brighton, and West Roxbury, are clearly the most lightly assessed." They also note that single-family homes in Charlestown had low sales values and high assessment ratios. We still find Roxbury to be the most highly assessed area, and East Boston, Brighton, and West Roxbury among the lowest assessed neighborhoods. But thirteen years after Aaron and Oldman's data, we find in 1975 that Hyde Park is in the middle third of neighborhoods ranked by assessment to sales value ratios, and Charlestown has the City's lowest ratios for each of the three small residential property types. The source of this shift is to be found in a phenomena which Aaron and Oldman suspected as a major cause of neighborhood assessing ratio differences: the failure of assessors to respond to changing market values.

"Failure to adjust assessments for relative price changes leads to inequities which are called de facto discrimination" concludes Robert F. Engle in his study of Boston residential property sales prices and assessments over the period 1946-1972 ("De Facto Discrimination in

Residential Assessments: Boston," National Tax Journal, December 1975). Using a data base[20] of properties sold at least twice during his 26-year study period, Engle found that 85 percent of these properties were not reassessed between the two sales dates. While each of the fourteen districts examined showed significant (and different) trends of price growth, only half of them evidenced any statistically significant assessment changes. In general, relative assessment changes were 33 percent of proportional sales price changes between 1946 and 1960, and the level of assessing response dropped to fifteen and a half percent during the 1961-1971 period.[21] As real property values changed at varying average neighborhood rates, assessed values changed very little, so that assessment to value ratios fell rapidly in fast growth areas while remaining close to older, higher levels in stagnant real estate markets. In consequence, Engle saw that the City average residential assessment ratio fell from near 100 percent in 1946 to 29 percent by 1972. At the beginning of this period, he found that "central city districts had the highest assessments....while the more suburban areas....had low ratios." The intermediate neighborhoods were in between. "However, over time, the growth of prices in the central districts was so rapid that in the early sixties," their ratios fell below those of the intermediate areas. Engle predicted that "if history is any guide, the central areas will soon be assessed even lower than the suburbs." In 1975 this was already coming to pass, and by 1978, the prediction was fulfilled.

Table 4-5 shows assessments, market values, and ratios for small residences in mid-1978. The figures (based on the preceding table and on new market value indices that update Engle's) illustrate the effects of unresponsive assessments in the face of widely different neighborhood

price trends. Single-family homes in Roxbury's Ward 12 were now assessed at an average level 277 percent higher than the Charlestown average, compared to 221 percent higher, three years earlier. Inter-area coefficients of dispersion (the wards' average difference from the City's mean class ratio) had increased by about a tenth for two- and three-family homes and by over a fifth for single-family homes during the 1975-1978 period[22]. The process of de facto discrimination had increased the relative tax advantage of stronger value growth areas over weak market areas, and perhaps further weakened the market in slow growth neighborhoods.

Sales price and assessment trends of residential properties in Boston's 22 wards between 1955 and 1975 are presented in Table 4-6 and Chart 4-2. These tables and charts can be regarded as depicting the average changes experienced by what was one dollar of sales value or assessed value back in the base year 1955.[23] The tables do not show the absolute level of prices, assessments, or ratios, but rather, the percents by which they have changed since 1955. The typical residential property in Boston underwent a 148.7 percent price appreciation between 1955 and 1975 while assessments increased only fourteen percent. As a result, the prevailing average assessment to sales price ratio dropped to 45.9 percent of what it had been in 1955.

This assessment fraction decline proceeded at very different rates and to varying degrees in different areas. It was steeper than average in East Boston, where typical ratios fell to one-third of their 1955 level after 21 years. Ratios fell to no lower than 68 percent of their base year levels in wards 8, 9, 10, 14, 15, and 16 of Roxbury and Dorchester. Ward 6 in South Boston saw a decline to 27.1 percent of its earlier assessment fraction, and Charlestown's ratio fell to a fifth of

its 1955 average! The ward 2 figures in Table 4-6 indicate that by 1975 Charlestown ratios were, on average, only a quarter of what they had been in 1962 when Aaron and Oldman found them high. Charlestown's 1975 ratios were the lowest in the City, as seen in Table 4-4.

Chart 4-2 graphs the relative effects of "assessment lag" as values climb at different rates in Boston wards. The growing gaps between price and assessment lines represent the differential declines of assessment ratios in the various wards. In both wards 2 (Charlestown) and 16 (Dorchester), assessments remained virtually unchanged, but prices rose five fold in 2 and only sixty percent in 16. Ward 2's rapidly growing tax advantage over ward 16 can be seen in the steadily increasing difference in the size of their assessment lag gaps. While value growth in the Back Bay-Beacon Hill neighborhoods (Ward 5) was much stronger than the City average, so were assessment increases. Consequently, average ratios did not fall much further than average. Declining assessments in Dorchester's ward 14 were not sufficient to offset the effects of relatively inert values, and the small gap between price and assessment lines indicates an increasingly severe problem of relative overassessment.

Large and growing regional disparities in Boston's residential assessments are at least partially, and probably largely, the result of a failure to keep assessed values up to date with changing market values. Even though residential assessments may never have been fully equalized, the patterns that have emerged over three or four decades of unresponsive assessments have grown to dominate. The results include systematic differences in tax treatment for rising, stable, and stagnant real estate market areas. Since rapid value increase is one path to

high value level, this process of assessment lag has also tended to favor more valuable homes over more humble or underimproved ones. Assessment unresponsiveness can also lead to apparently erratic treatment among similar properties in small areas, as the cumulative effects of changing realty sub-markets, individual maintenance and preference choices, and age of assessment accumulate over time.

Other Disparities in Boston Assessments

Age of Condominiums:

Condominiums are a fairly recent housing alternative in Boston, the first units having been marketed in 1969. While they are most concentrated in the downtown areas of Back Bay, Beacon Hill, and the Waterfront, condominiums could also be found in suburban and intermediate neighborhoods by 1978. Boston's initial tax treatment of condos has been remarkably uniform in all areas of the City. Assessing practice had been to value new condominiums at 26 percent of their initial sales price. In 1977 this standard was lowered to 23 percent as a response to declining average ratios of conventional single-family homes.

This uniformity of practice, however, led to a systematic pattern of assessment-to-current-value ratio disparity parallel to the regional biases we have examined. As units appreciated in value after first being marketed, their fractional assessment ratios declined since the basis for assessment--initial price--remained static. Because older condominiums had been appreciating over a longer period of time since their first marketing price set the assessment basis, they tended to have lower assessment to value ratios and enjoyed lower effective tax rates than did newer units. In its report Condominium Conversion in

Boston: A Significant Tax Benefit to the City (1980), the Boston Municipal Research Bureau cited two examples of units resold in 1977 where assessment to sales price ratios were nine and twelve percent due to failure to reassess in response to increased values. New condominiums with current sales values identical to those of these example units received tax bills that were two and a half and two times as great as these older homes since their assessed values were based on recent, rather than outdated sales prices.

Examination of 246 condominiums sold in Boston in 1975 shows a mean assessment/sales ratio of 24.8 percent. Sixty-five percent (160) of these had ratios between 22.3 percent and 27.3 percent. Only thirteen percent (32) were above this range, while 22 percent (54) had ratios below the middle range[24], the lowest being 12.9 percent. This distribution was virtually unchanged among condominiums sold in 1976. These figures would tend to overstate the average assessment level prevalent among all units (sold and unsold) and understate their disparity, due to the high proportion of initial sales with uniform ratios in the samples.[25]

As in the case of Boston's neighborhood assessment patterns, condominium tax treatment was leading to systematic and increasing uniformity problems due to the unresponsiveness of assessments to changing values.

Regressivity Across Value Levels:

Boston is among the sizable minority of assessing jurisdictions that tend to assess less valuable properties at higher than average fractions of market value. The U.S. Census of Governments (1977) reports that 1976 sales price and assessed value data for single-family

homes in 1,569 selected areas indicate that forty percent of these areas had price-related differentials of 105 or greater.[26] The price-related differential is calculated as one hundred times the unweighted mean assessment/sales price ratio divided by the weighted mean ratio. Since the unweighted ratio reflects the tax treatment of the average property and the weighted ratio reflects the tax treatment of the average dollar of sales value, a price-related differential much greater than 100 suggests that less valuable properties tend to have higher assessment/value ratios than do more valuable properties.[27] One rule of thumb holds that price-related differentials greater than 110 indicate "assessment regressivity", that is, strong evidence that lower value properties do in fact have higher assessment levels and effective tax rates than do higher value properties.[28]

Table 4-7 shows that the price related differentials for Boston's one-, two-, and three-family homes were 114, 121, and 130, respectively, in 1975. These citywide differentials are generally greater than those found in individual wards for these property types, indicating that Boston's pattern of price-related assessment disparity is associated with the regional dispersion we have examined and identified with "assessment lag" in the face of different neighborhood rates of value change. Condominiums have very neutral price-related differentials both within and across wards, reflecting the uniform treatment shown this new property category.

Oldman and Aaron (1965, op.cit.) noted this inverse relationship between assessment levels and property price level in their examination of 1962 Boston sales data. They reached the conclusions that: "The concentration of low-price dwellings in Charlestown goes some way toward

explaining the high assessments suffered by this region. But Roxbury, which also has a high concentration of low-price properties, would remain the most stiffly assessed assessed region in the City, even if it had no properties in the two lowest price classes. In any event, the observed pattern clearly indicates a bias in administration that probably makes the property tax in Boston highly regressive." The biases in administration suggested by Oldman and Aaron were the implicit or explicit use by assessors of replacement cost concepts or the benefit principle in valuing property. But nearly a decade and a half later, we see that Charlestown, which has experienced rapid property value appreciation since Oldman and Aaron examined it, has some of the lowest residential assessment levels in the City coupled with still slightly below average one- and two-family home prices. Roxbury values have remained fairly static and its assessment ratios remain relatively high. Non-application of valuation concepts and taxation principles may explain price-related assessment disparities better than mis-application can. Charts 4-2 suggest that since market value growth leads to lower assessment to price ratios, as well as higher prices, assessment lag is the primary cause of Boston assessment bias with respect to price level.

Oldman's and Aaron's conclusion that price-related assessment bias "probably makes the property tax in Boston highly regressive" was explored by David E. Black using 1960 Boston sales price and assessment data.[29] While the term "assessment regressivity" is often used to describe a system in which less valuable properties tend to have higher effective tax rates, "tax regressivity" or "income regressivity" means that people with lower incomes must pay a higher proportion of their incomes as taxes. Black argued that even if theoretical arguments that

a well-administered property tax is inherently progressive are correct, severe price-related assessment bias can make the tax regressive in practice. While the complexities of interrelationships among apartment values, rents, and renter incomes prevented Black from arriving at confident conclusions about tax incidence for renters, he found strong evidence that the property tax on Boston homeowners may have been regressive. At the heart of Black's analysis were empirical estimates that Boston's elasticity of effective tax rates with respect to housing value ranged from -.31 to -.40 for one- to three-family homes. That is, a single family home with twice the value (100 percent greater) of another would, on average, have an effective tax rate (or relative assessment to value ratio) thirty-one percent less than the less valuable home. While our analysis of more recent Boston property data does not allow direct comparison within this framework, we still find significant price related assessment disparity and join Oldman, Aaron, and Black in the view that improved assessment administration would bring the Boston property tax more in line with ability-to-pay principles.

Vintage of Commercial Office Properties:

Over one-third (36.2%) of Boston's Fiscal Year 1978 assessed value tax base was to be found in commercial property. This class is comprised of office, retail, and other income producing real estate excluding industrial and apartment properties. Downtown office space accounted for sixty percent of commercial class taxable market value and over one-sixth (17.6%) of the City's market value tax base.

While variations in commercial property assessment levels roughly followed location and value lines, no clear and consistent patterns

emerged. Table 4-8 summarizes sales price and assessed value observations on commercial properties for the years 1974, 1975, and 1976. The Roxbury and Dorchester wards generally had the highest assessment to sales ratios and in most cases individual wards' value weighted ratios were lower than their unweighted ratios, showing that lower-priced commercial realty had a higher average assessment level than higher-priced property. But the ward ratios, price-related differentials, and even the ward ratios' rank order within the City were not always consistent from year to year. The small sample sizes and the fact that four of the wards had fewer than five valid sales in each of the three years reflected the general paucity of commercial sales and the extent to which recorded sales data were incomplete or of apparent special circumstance. Variation from ward average ratios was considerable, with standard deviations typically exceeding half of the mean values. A further problem with the assessment to sales price ratios is that they tell us nothing about the relative tax levels of the large and important sector of new downtown office properties that have generally not been sold since their construction.

The most evident and well-documented systematic disparity in Boston's commercial property assessments was the different treatments given "old" (built before 1960) and "new" (built after 1960) office buildings. Before the start of the office building boom in 1960, Boston's office space was indeed old, with only one major building constructed since 1929.[30] Annual private construction between 1950 and 1958 averaged $17 million, only about one-fifth of the 1920s' yearly $80 million.[31] Then, between 1960 and the end of 1978, roughly 15½ million gross square feet of competitive office space was either built or

converted from non-office structures and added to the prior inventory of 22½ million gross feet.[32]

The principal economic motive for this investment was the growth of service, finance, insurance, and related "office industries". One of the greatest barriers to this development was Boston's high and unpredictable property tax. The property tax had not been the only obstacle to development as Boston entered the decade of the sixties, but it was a major and perhaps deciding factor in many cases. Boston was just emerging from a "30-year depression" and the signs of a successful transformation from a manufacturing to a services-based economy[33] were not yet fully evident. The City's eroding tax base, coupled with its exclusive reliance on the property tax as a major revenue source made taxes a major expense and risk item for potential developers, and made development growth a major priority for City officials. Unlike economic and market uncertainties, the property tax stood out as a factor that could be dealt with administratively through negotiation and agreement. Negotiated tax agreements became the rule as Boston's office construction boom began with the Prudential Center agreement in 1958.

When the Prudential Insurance Company of America announced plans for the biggest single real estate project in Boston's history--a $100 million office, retail, hotel, and apartment complex--it made clear that it could not proceed without tax concessions from the City.[34] Prudential wanted a guarantee that their property tax bill would be low and stable enough to allow them an acceptable, safe return on their investment. Since they also required that the tax agreement withstand legal challenge, their arrangement with the City would have had to specify a defensible means for determining a low assessed value. If the

project were to be taxed in proportion to its construction cost, the bill would be too high for Prudential to accept. Oliver Park, Executive Director of the Boston Assessing Department, advanced a procedure that seemed acceptable to both Prudential and the City. "Capitalization after allowance for proportional return"[35] would be used to determine the official tax value (assessment) and therefore the tax bill. This variation of the income capitalization method for calculating investment value was tailored for projects whose profit after payment of operating expenses and ordinary property taxes would not justify development costs. Rather than determining profit, depreciation, and property tax amounts simultaneously with investment value, as traditional methods do, "proportional return" calculations first subtract from net income amounts for profit and depreciation based on development costs, leaving the remainder available for property taxes. The assessed value is derived by dividing this tax allowance by the tax rate. Although controversial, this approach was at least arguable; but two later events took "proportional return" out of the tax agreement debate so that its legal defensibility was never resolved.

The agreement signed by Prudential and Mayor Hynes in 1958 specified an initial tax payment level of $3 million, as had been figured by proportional return calculations, but the agreement nowhere mentioned the proportional return theory and method. Instead, the payment was defined as being twenty percent of projected gross income. The dollars were the same, but the precedent, technical arguments, and future payment schedule were different. Then Prudential, having grown more concerned about the legality and enforceability of the agreement, took part in an effort to amend Massachusetts' Chapter 121A urban

renewal law so that it could qualify for a legal contract under the same terms agreed upon "informally".[36] They succeeded in 1960 and construction proceeded under the protection of a formal and explicitly legal agreement. The Prudential Center was to be exempt from the property tax and make contracted payments in lieu of tax.

By this time a number of other developers had perceived the same combination of opportunity and risk that had moved Prudential to seek tax protection for new office construction. Like Prudential, many of these began negotiations within a "proportional return" framework but concluded agreements with the simpler "20 percent of gross income" standard written into the Prudential contract. Unlike Prudential, most of these other agreements were informal, non-binding, and "extra-legal". These new office buildings were subject to the property tax, but their assessed values were derived from their agreed tax bills, rather than determining their bills. Later agreements often called for tax payments higher than the 20 percent of income benchmark as the economic success of Boston's growing office industry became more apparent and the City's bargaining position improved. Nonetheless, developers still sought pre-construction tax agreements to protect themselves against the risk of unpredictable tax bills and allow them to make the reliable income and expense forecasts necessary to obtain financing. Residential developers also sought tax agreements, especially when working under State and Federal subsidy programs that required a statement of anticipated tax liability for approval.[37] More of these residential developments qualified for Massachusetts Chapter 121A status, however, and so they were officially exempt from the property tax but subject to contracted payments in lieu of taxes, as was the Prudential Center.

At the same time that Boston was negotiating with developers of new office space for tax payments in the range of 20 percent of gross income, it was extracting about 30 percent or more of income from existing commercial property.[38] Holland and Oldman (1974, op.cit.) had noted the relative over-assessment of older commercial properties using 1972 data. They estimated weighted (total assessment/total value) assessment to value ratios of 18 percent for new and 52 percent for old commercial realty.[39] They also found considerable inconsistency of assessment levels within the category of old commercial properties. The standard deviation about the mean (unweighted) assessment ratio of .47 (47 percent) was .26, with over 30 percent of their sales sample having ratios under 30 percent and nearly 17 percent of the sampled properties having assessments that exceeded 70 percent of recorded sales price. Chart 4-3 shows that we found similar disparities among 124 (presumably) old commercial properties sold in 1975. The standard deviation about the .52 mean was .36 and nearly 40 percent of the properties had ratios below 36 percent, while nearly 20 percent of the sample was assessed at over 67 percent of sales price. The high coefficient of dispersion printed with the chart shows that, on average, the commercial properties sold in 1975 had assessment to sales price ratios that differed from the median ratio by over half of that median value. Fewer than one out of six properties examined had ratios that were within one-tenth of the mean ratio.[40]

Susan Houston[41] estimated 1972 assessment to value ratios of 25 percent for new office realty and 70 percent for old, applying income capitalization techniques to rent, occupancy, operating expense, and financing data. This estimated assessment to value proportionality

difference of nearly three-fold was based partly on the assumption that tax bills equalled 20 percent and 30 percent of gross income for new and old buildings, respectively. Houston pointed out that actual tax disparity (tax as a percent of property market value) between old and new office space was much greater than a comparison of gross income percentages taxed would indicate. Our own figures on Boston's office industry in 1978 bear this out.

We have chosen income capitalization (figuring investment value on the basis of profitability) as the means of estimating commercial property values used in this study. These techniques use income and expense information that is more plentiful and reliable than sales price data, and also the analysis better illustrates the real significance of apparently moderate differences in tax treatment for different property vintages.[42]

Table 4-9 details the average financial and property tax characteristics of new (Class A, built after 1960), old but modernized (Class B), and old (Class C) Boston office buildings in mid-1978. At 26.8 percent, the average Class C property's tax as a percent of Effective Gross Income (vacancy adjusted rent) was just less than half again as high as the 18.3 percent paid by Class A office space. These figures are close to the 30 and 20 percent levels thought to describe City assessing practice. But, since operating costs take a much greater portion of older buildings' total rents, the property tax as a percent of net income for Class C office space (47.1 percent) was nearly twice that for Class A (24.4 percent). When the profit remaining after payment of operating costs and property taxes is translated (capitalized) into a measure of value, the real Class C tax rate is seen

to be nearly four times as high as the rate applied to Class A. Compare the assessment to value ratios of 54 percent for Class C and 14 percent for Class A.

After payment of operating costs and property taxes, only 30 percent of Class C buildings' effective gross income remained to cover debt service, depreciation, profit and risk. The net operating income of Class A buildings, on the other hand, was 57 percent of effective gross income. Since only net operating income is available for return on (financing, profit, and risk) and of (depreciation) the owner's investment, it is much more closely tied to the property's investment value than is gross income. The total rate of return (capitalization rate) for an older building must be higher also, to account for its shorter remaining economic life, higher risk, etc. When we divide net operating income by the chosen capitalization rate to find economic value (just as we might divide an interest payment amount by the interest rate to arrive at the principal amount), we find that the difference between Class A and C values is much greater than the difference between their effective gross incomes. The average value ($12.77) for a square foot of leasable Class C office space (shown in Table 4-9) was only 2.3 times the listed effective gross income ($5.52). The $59.27 value of a square foot of Class A space was 5.2 times its annual effective gross income.

A tax policy that took an equal percent of gross income from both old and new commercial properties would actually be taxing the older offices at a higher market value or "effective" rate. The practice of requiring higher income percentages from older buildings created the most serious inter-class assessment disparity in Boston. The assessment

to value ratio of 14 percent for new downtown office properties shown at the bottom of Table 4-9 is lower than the class average ratio of 15.5 percent for single family homes shown in Table 4-3. The 54 percent ratio for old downtown offices exceeds even that of the personal property class.

Random Disparities in Boston Assessments:

We have attempted to describe systematic assessment disparities among and within Boston property classes by detailing class and sub-class average tax, value, and assessment estimates. In some cases, the variations among sub-classes but within a property class exceeded the level of dispersion found among major property classes. A final word of warning should be given that dispersion within sub-classes but among individual properties was often as great as any of the "systematic" inequalities we have tried to document and explain. For lack of a better description, we will call these "random" disparities. Their great significance lies in the fact that they cannot be corrected by "factoring" class or sub-class assessments in an attempt to fully equalize property taxes without actually examining and appraising every single parcel of taxable property. This is not to say that general adjustments on the basis of averages is without merit as part of a "phase-in" process such as that performed by the Boston Assessor in October, 1980. We simply wish to emphasize the level of detail and difficulty necessary to actually finish the task. These random disparities are also important as a caution to those of us who would "predict" the effects of equalization policies on tax bills. While we may estimate for the average property, we should not expect many (or, in some cases, any) individual properties to be average.

Chart 4-4 displays the distribution of assessment to sales price ratios for two-family homes sold in the East Boston neighborhood during 1975. Only one of the 36 properties had a ratio that was within a tenth of the group's mean assessment level. If the properties in this sample were reassessed to the City average assessment ratio for two-family homes of 23.4 percent shown in Table 4-4, then over a third of them (the 13 of 36 having ratios below 15.5 percent) would bear increases of at least half their present assessment while assessed values would decline by 18 percent or more for a quarter of them (the 9 of 36 having ratios above 28.7 percent). The 46.9 coefficient of dispersion shows that non-uniformity within this group of similar properties in the same neighborhood far exceeded the dispersion among average two-family home assessment levels of the City's 22 wards (the inter-regional C.O.D. was 26.7).

Chart 4-5 shows a similar degree of variation among Charlestown's single family homes sold in 1975. Again, the coefficient of dispersion within this area exceeds the dispersion measure for the City's 22-ward averages (51.4 versus 26.1). The standard deviation about the mean assessment to sales price ratio is about two-thirds of the mean value, and the range of ratios spans a factor of 10 (from 3.5 percent to 38.1 percent).

In Chart 4-6 we see that dispersion within neighborhood classes (three-family homes) extends to the suburban-type areas of Boston, such as Hyde Park. Chart 4-7 indicates that commercial properties within downtown ward 3 received tax treatment only slightly more uniform than that experienced by the diverse collection of all Boston commercial property sold in 1975 (Chart 4-3).

Conclusion

Massachusetts' history of compliance and enforcement in property tax administration was marked by avoidance and uncertainty through the middle of the 1970s decade. The 1961 court decision in the Springfield case forbade de facto differential tax classification by administrative decision but failed, along with subsequent cases, to deal with random disparity and classification by neglect. In some instances, the postponement of compliance and enforcement allowed a worsening of inequities, as happened with Boston's neighborhood residential disparities. Even where dispersion did not increase, the cost of correction grew more grim as statewide per capita property taxes grew by 335 percent (from $120 to $522) between 1957 and 1978 and property taxes measured per $1,000 of state personal income rose 38 percent (from $52 to $72) over the same period.[43]

The Sudbury case (1974) finally established responsibility for enforcement of full assessment and equal taxation laws, but most communities found postponement more palatable than compliance. Property tax equalization generally reduced business taxes at the expense of homeowners as de facto classification was erased, although the correction of "random" dispersion often created both "winners" and "losers" in each property class. Post-revaluation election results suggest that anger among voting losers exceeded satisfaction among voting winners.

The approval of classification in the 1978 election established new laws for the property tax, requiring that residents and homeowners retain their privileged tax treatment with respect to commerce and industry, while other inequities were remedied. Although the rules for

classification were to be changed to a range of local option choices so that municipalities could choose not to favor residential taxpayers, the possibility of avoiding aggregate tax shifts from business to housing helped relieve popular and political opposition to assessment reform.

In the following chapter we will examine the technical details and practical impacts of classification. The initial tax classification law promised to moderate aggregate statewide, inter-class tax shifts, but it was insensitive to the variety of local disproportionment patterns within the state. The local option rules that supplanted mandatory classification could be tailored to individual communities' property class patterns, but could not prevent individual tax bill increases due to existing intra-class assessment variations and persistently high levys. In this report's final chapter we see these levies reduced by "Proposition 2½".

Footnotes

[1] For further detail see Hofstra Law Review, Vol. 5, No. 2, 1977. Does Full Value Mean Full Value? Prospects for Assessment Reform in New York in Light of Other States with Hellerstein's Progenitors, by Irving I. Lesnick.

[2] Act of February 20, 1786, Ch. 50, Section 1.

[3] Carr vs. Assessors of Springfield.

[4] Stone vs. City of Springfield.

[5] Source: U.S. Census of Governments, Vol. 2, part 2, 1962, 1967, 1971, 1977.

[6] The Coefficient of Dispersion is a measure of average percent difference from the average assessment level. Low numbers are good, high numbers bad. See page II-30 of Volume 2, this report.

[7] Coan vs. Board of Assessors (1965), Bennett vs. Board of Assessors, (1968.

[8] Act of June 6, 1898, Ch. 507, Section 3.

[9] Act of February 20, 1786, Ch. 50, Sec. 3.

[10] Sudbury First Progress Report, Feb. 27, 1976.

[11] Massachusetts Taxpayers' Foundation annual Municipal Finance Data.

[12] City of Lowell v. County Commissioners of Middlesex (1890).

[13] This section is based on papers written in August, 1978 by Francis X. Moynihan, Jr., with the author's kind permission.

[14] Of course these numbers don't add up because they work together in a multiplicative fashion. For example: New homeowner taxes result from the product of assessment and levy effects. 1.41 x 1.37 = 1.93.

[15] William C. Wheaton, The Statewide Impact of Full Property Revaluation in Massachusetts, Federal Reserve Bank of Boston, May 1975 and Raymond G. Torto, Estimating the Impact of 100% Valuation and Taxation by Classification in Massachusetts: Part I, Massachusetts Mayors Association, June 14, 1978.

[16] Daniel M. Holland and Oliver Oldman, Estimating the Impact of Full Value Assessment on Taxes and Value of Real Estate in Boston, Boston Urban Observatory (University of Massachusetts), 1976 and Kenneth G. Cooper and Robert M. Weinbert, Simulating the Economic Impacts of Revaluation in Boston, Federal Reserve Bank of Boston, 1975.

[17] The theory of tax capitalization holds that higher taxes tend to depress values and lower taxes tend to elevate values. We mention it again in the next chapter and discuss it at length in Vol. II, Chapter 3.

[18] Howard Bloom, Helen Ladd, and John Yinger, Intrajurisdictional Property-Tax Capitalization, John F. Kennedy School of Government, Harvard University, 1980.

[19] The 1975 inter-regional coefficients of dispersion about the mean for one-, two-, and three-family dwellings were 26.1 percent, 26.7 percent, and 28.3 percent, respectively. See Vol.II, Chapter 2, p.2-30 for a description of this statistic.

[20] Professor Engle's data base is included in the data that this present study used to a similar purpose, as presented below.

[21] The constant elasticities of assessments with respect to sales prices estimated by Engle were .331 and .155 for the 1946-60 and 1961-71 periods, respectively.

[22] The 1978 inter-regional coefficients of dispersion about the mean for one-, two-, and three-family dwellings were 31.8 percent, 29.2 percent, and 31.2 percent, respectively.

[23] See Volume II, Chapter 3 for a thorough discussion of these indices.

[24] The "middle range" is the interval one-tenth above or below the mean ratio. See Volume 2, Chapter II, pages II-22 and following for a discussion of this method for measuring dispersion.

[25] Condominium Development in Boston, Bonnie Heudorfer, BRA, 1980 presents a summary schedule and detailed listing of new condominium marketings by year (Appendix A).

[26] 1977 Census of Governments, Vol. 2: Taxable Property Values and Assessment/Sales Price Ratios; Bureau of the Census, 1978, Table 17.

[27] For a comparison of these two ratios see Volume 2 of this report, page II-31. In fact, even where assessments are completely neutral with respect to property value, the price-related differential will often be greater than 100 since the statistical flaw of upward bias is more serious for the unweighted (simple) average ratio than it is for the weighted ratio. See Improving Real Property Assessment-A Reference Manual, International Association of Assessing Officers (IAAO), 1978, page 126.

[28] IAAO, op.cit., p. 128. The usefulness of this rule is said to hold for sample sizes of at least 30.

[29] "Property Tax Incidence: The Excise-Tax Effect and Assessment Practices," David E. Black, National Tax Journal, December 1977.

[30] The "old" John Hancock building was completed in 1947.

[31] Boston City Planning Board, Basic Studies Section, Research Division, Tax Policy Revisions: An Analysis of Potential Effects, Staff Report #4, March 1959.

[32] Michael Matrullo, The Office Industry Survey, Part II, BRA Research, March 1979.

[33] Alex Ganz and Chris Carlaw, Boston's People and Their Economy: Mayor Kevin H. White's Program, BRA Research, July 1975.

[34] See Timmons, "The Prudential Center Agreement: A Case Study in Property Tax Concession," Assessors Journal, July 1967.

[35] Oliver Park, "Equity and the Use of Proportional Return for New Construction," Case Reports in Assessment Administration, Vol 1, No. 13, Sept. 1959 and Park, "The Capitalization Method and the Principle of Proportional Return", The Realtor, Sept.-Oct. 1959.

[36] The amendments extended coverage of Ch. 121A to commercial as well as residential development, widened definitions for eligible areas, and allowed flexible negotiation and agreement between City and developer for payments in lieu of property taxes. 121A developments are exempt from the property tax per se.

[37] Jacobs Company, Inc., The Assessing Function in Boston. Prepared for the Boston Finance Commission, 1971, Appendix A.

[38] Boston Municipal Research Bureau, "The Boston Property Tax, an Excessive and Often Unequal Burden," Special Report No. 25. December 31, 1973.

[39] Holland and Oldman's estimate of old commercial property's ratio was the average assessment/sales price ratio for 189 properties sold in 1972. The estimate for new commercial was the average ratio of assessment to development cost for fifteen new office buildings.

[40] See Volume II, Chapter 2 for a description and explanation of the graph and statistics shown on this chart.

[41] Susan Levine Houston, "The Effect of One Hundred Percent Valuation on Property in the City of Boston," unpublished draft, BRA Research, 1976.

[42] Capitalization processes are discussed in Vol. II of this report. See Chapter 2 for the basics of income capitalization to determine value and Chapter 3 on the topic of tax capitalization (the influence of property taxes on value).

[43] Significant Features of Fiscal Federalism 1979-80 Edition, ACIR, 1980. Tables 68 and 69.

ASSESSMENT TO VALUE RATIOS IN MASSACHUSETTS COMMUNITIES AT THE END OF FISCAL YEAR 1978 (JUNE, 1978)

Population Group	Number of Jurisdictions	Average Ratio	One Family	Two Family	Three Family	Apartments	Residential/ Commercial	Commercial	Industrial	Farm	Land	Personalty
Over 50,000	22	38.5%	32.7	28.4	30.7	43.4	30.6	47.1	54.7	88.9	22.4	67.2
25-50,000	39	45.0	41.4	36.8	38.4	46.9	49.1	56.5	56.6	89.1	41.9	57.6
10-25,000	87	56.2	54.2	52.6	53.1	59.8	61.7	63.4	65.0	89.1	41.8	78.2
Less than 10,000	202*	57.9	56.2	52.4	53.5	60.3	61.2	63.7	73.6	89.8	52.0	70.0
State-wide	350*	48.6	47.1	36.5	35.1	48.1	47.5	54.3	60.6	89.5	41.6	68.0

* Wendell (population 631) is not included due to lack of data.

Note: Municipalities are grouped according to population on the basis of the 1975 State Census.
Assessed Values are those reported for FY78.
Market Values are based on the 1978 State Equalization Survey, which is derived from sales and appraisals approximately centered about 1/1/77.
Real estate value estimates were increased uniformly by 12.2% to account for 1½ years of assumed 8% annual value growth.

Table 4-2

AVERAGE TAX LEVELS AND MARKET VALUE TAX BASE COMPOSITION OF MASSACHUSETTS COMMUNITIES AT THE END OF FISCAL YEAR 1978

Population Group	Average Effective Tax Rate	Percent of Local Market Value Tax Base									
		One Family	Two Family	Three Family	Apartments	Residential/ Commercial	Commercial	Industrial	Farm	Land	Personalty
Over 50,000	5.7%	39.3	11.5	5.4	8.9	1.2	17.8	5.9	-	3.4	5.8
25-50,000	3.5	59.3	7.2	1.5	3.9	1.0	11.0	7.3	-	3.6	5.2
10-25,000	3.1	68.5	3.8	0.7	3.0	1.1	8.3	5.1	0.1	4.9	4.5
Less than 10,000	2.3	66.5	3.3	0.6	1.7	2.0	6.0	4.6	0.2	9.5	5.4
State-wide	3.8	57.3	6.8	2.3	4.7	1.5	11.3	5.8	0.1	5.0	5.2

Note: Please see the notes to Table 4-1.

Table 4-3

CLASS DISPARITIES IN BOSTON ASSESSMENT
June 1978

Class	Total Market Value ($ Millions)	Total Assessed Value ($ Millions)	Assessment to Value Ratio %	Number of Parcels	% Market Value Tax Base	% Assessed Value Tax Base
1-Family	926.412	144.008	15.5	29,233	15.8	8.3
2-Family	604.670	112.393	18.6	19,453	10.3	6.4
3-Family	420.096	101.480	24.2	16,443	7.1	5.8
Apartments	611.084	209.341	34.3	7,600	10.4	12.0
Condominiums	130.370	25.618	19.7	2,099	2.2	1.5
Mixed Residential/ Commercial	295.818	63.385	21.4	2,486	5.0	3.6
Commercial	1,722.916	631.657	36.7	5,975	29.3	36.2
Industrial	419.339	169.783	40.5	969	7.1	9.7
Agricultural	.074	.074	100.0	3	-	-
Land	273.694	40.325	14.7	11,404	4.7	2.3
Personal	471.088	246.961	52.4	-	8.0	14.2
Total	5,875.561	1,745.025	29.7	95,664	100.0	100.0
Sub-Total Residential	2,692.632	592.840	22.0	74,827	45.8	34.0
Sub-Total Non-Residential*	3,182.929	1,152.185	36.2	20,837	54.2	66.0

* Mixed use Residential/Commercial properties are included in the Non-Residential Sub-Total.

Table 4-4

MARKET VALUES AND ASSESSED VALUES OF BOSTON'S
ONE, TWO, AND THREE FAMILY HOMES, BY WARD, 1975

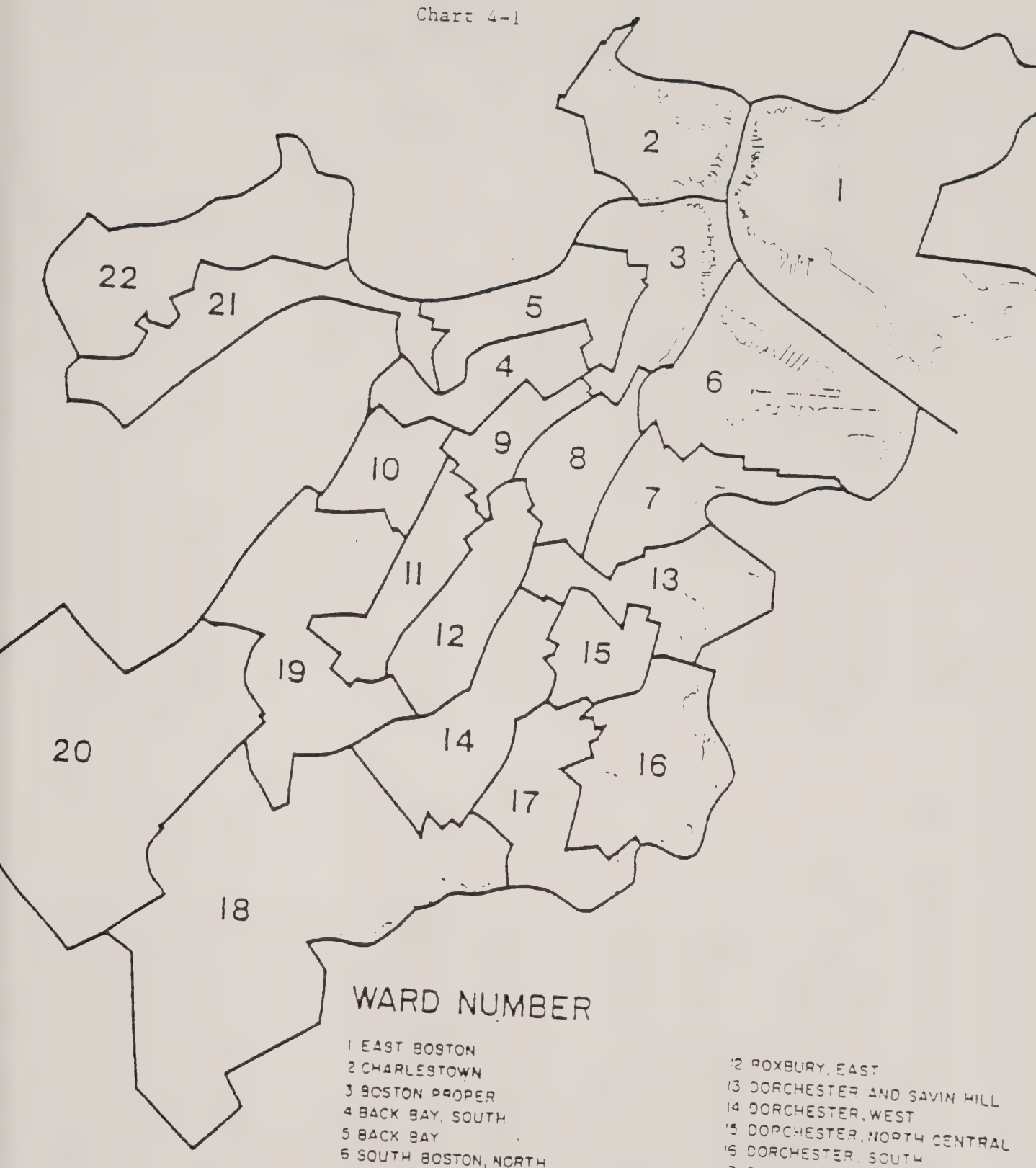
WARD	TOTAL ASSESS/TOTAL VALUE RATIO			NUMBER TAXABLE PROPERTIES			AVERAGE MARKET VALUE			AVERAGE ASSESSED VALUE		
	R1	R2	R3	R1	R2	R3	R1	R2	R3	R1	R2	R3
1	.161	.174	.220	939	1,348	2,172	$20,752	$23,126	$20,741	$3,341	$4,024	$4,563
2	.123	.134	.154	881	539	498	$21,260	$23,664	$28,818	$2,615	$3,171	$4,438
3	.178	.183	.231	95	61	215	$33,624	$27,546	$30,740	$5,985	$5,041	$7,101
4	.163	.181	.205	302	58	172	$40,982	$60,204	$55,893	$6,680	$10,897	$11,458
5	.216	.229	.257	524	75	140	$77,148	$72,223	$75,637	$16,664	$16,539	$17,926
6	.177	.184	.223	956	772	720	$13,350	$18,549	$21,596	$2,363	$3,413	$4,816
7	.173	.204	.287	717	755	1,304	$15,578	$20,069	$17,547	$2,695	$4,094	$5,036
8	.310	.396	.424	200	222	397	$10,910	$9,343	$10,778	$3,382	$3,700	$4,570
9	.247	.285	.323	122	92	178	$10,587	$15,074	$14,307	$2,615	$4,296	$4,621
10	.249	.331	.364	247	326	763	$18,064	$19,344	$16,588	$4,498	$6,403	$6,038
11	.268	.311	.407	481	564	949	$13,978	$14,537	$14,744	$3,746	$4,521	$6,001
12	.395	.342	.490	424	546	651	$9,446	$14,465	$12,812	$3,731	$4,947	$6,278
13	.301	.312	.444	672	565	1,108	$12,651	$14,548	$13,405	$3,808	$4,539	$5,952
14	.271	.380	.493	576	1,299	1,722	$13,827	$14,287	$13,207	$3,747	$5,429	$6,511
15	.305	.319	.458	536	624	1,284	$13,033	$15,003	$14,282	$3,975	$4,786	$6,541
16	.230	.265	.337	1,828	1,454	982	$20,161	$23,521	$20,451	$4,637	$6,233	$6,892
17	.267	.298	.372	1,711	1,429	1,004	$17,933	$21,252	$18,927	$4,788	$6,333	$7,041
18	.202	.236	.270	6,915	2,970	613	$22,936	$24,814	$24,885	$4,633	$5,856	$6,719
19	.210	.256	.300	2,005	1,277	690	$29,595	$25,625	$23,063	$6,215	$6,560	$6,919
20	.188	.217	.231	7,637	1,876	351	$30,059	$33,553	$34,450	$5,651	$7,281	$7,958
21	.179	.201	.229	449	588	256	$43,184	$46,070	$50,555	$7,730	$9,260	$11,577
22	.172	.182	.217	1,962	2,101	524	$28,512	$36,868	$35,959	$4,904	$6,710	$7,803
AVERAGES	.201	.234	.309				$24,798	$24,793	$20,159	$4,996	$5,797	$6,228
TOTALS (S MILLIONS)				29,579	19,541	16,693	$733.514	$484.476	$336.523	$147.762	$113.281	$103.969

Table 4-5

MARKET VALUES AND ASSESSED VALUES OF BOSTON'S
ONE, TWO, AND THREE FAMILY HOMES, BY WARD, 1978

WARD	TOTAL ASSESS/TOTAL VALUE RATIO			NUMBER TAXABLE PROPERTIES			AVERAGE MARKET VALUE			AVERAGE ASSESSED VALUE		
	R1	R2	R3	R1	R2	R3	R1	R2	R3	R1	R2	R3
1	.129	.139	.176	938	1,345	2,154	$25,960	$28,931	$25,946	$3,345	$4,035	$4,559
2	.092	.099	.114	894	539	497	$28,895	$32,163	$39,168	$2,654	$3,171	$4,458
3	.065	.143	.171	101	61	214	$46,023	$37,704	$42,076	$3,012	$5,397	$7,176
4	.107	.120	.136	303	58	176	$61,827	$90,828	$84,323	$6,588	$10,897	$11,463
5	.120	.155	.160	526	74	141	$113,345	$106,108	$111,125	$13,656	$16,499	$17,803
6	.142	.148	.179	955	766	718	$16,676	$23,169	$26,976	$2,370	$3,427	$4,831
7	.133	.157	.219	714	753	1,305	$20,320	$26,177	$22,888	$2,703	$4,108	$5,019
8	.205	.276	.297	188	215	380	$15,587	$13,349	$15,399	$3,197	$3,689	$4,573
9	.169	.203	.226	125	90	166	$15,126	$21,536	$20,440	$2,552	$4,364	$4,618
10	.204	.274	.302	242	323	755	$21,781	$23,325	$20,001	$4,435	$6,398	$6,038
11	.201	.243	.315	484	563	946	$17,923	$18,640	$18,906	$3,601	$4,523	$5,962
12	.347	.300	.433	421	552	639	$10,695	$16,378	$14,507	$3,715	$4,918	$6,280
13	.252	.260	.368	661	560	1,094	$15,051	$17,308	$15,948	$3,792	$4,497	$5,873
14	.236	.330	.424	567	1,285	1,665	$15,848	$16,376	$15,138	$3,740	$5,405	$6,421
15	.248	.258	.365	510	606	1,223	$15,794	$18,182	$17,307	$3,923	$4,691	$6,321
16	.190	.218	.276	1,825	1,450	974	$24,294	$28,342	$24,643	$4,615	$6,185	$6,793
17	.208	.230	.280	1,700	1,416	971	$22,684	$26,882	$25,942	$4,725	$6,176	$6,698
18	.168	.195	.223	6,604	2,963	609	$27,523	$29,777	$29,863	$4,625	$5,816	$6,667
19	.176	.212	.250	2,045	1,275	682	$35,594	$30,819	$27,738	$6,267	$6,536	$6,924
20	.142	.165	.176	7,626	1,874	350	$39,545	$44,143	$45,323	$5,628	$7,290	$7,963
21	.145	.163	.183	446	587	257	$54,186	$57,806	$61,434	$7,860	$9,424	$11,611
22	.135	.143	.171	1,358	2,098	527	$36,334	$46,984	$45,824	$4,902	$6,702	$7,830
AVERAGES	.155	.186	.242				$31,691	$31,084	$29,549	$4,926	$5,778	$6,172
TOTALS ($ MILLIONS)				29,233	19,453	16,443	$926.412	$604.670	$420.096	$144.008	$112.393	$101.480

Chart 4-1



WARD NUMBER

1 EAST BOSTON
2 CHARLESTOWN
3 BOSTON PROPER
4 BACK BAY, SOUTH
5 BACK BAY
6 SOUTH BOSTON, NORTH
7 SOUTH BOSTON, SOUTH
8 ROXBURY, EAST AND SOUTH
9 ROXBURY, CENTRAL
10 ROXBURY, WEST
11 ROXBURY, SOUTH; EGLESTON SQUARE AND FOREST HILLS
12 ROXBURY, EAST
13 DORCHESTER AND SAVIN HILL
14 DORCHESTER, WEST
15 DORCHESTER, NORTH CENTRAL
16 DORCHESTER, SOUTH
17 DORCHESTER, CENTER
18 HYDE PARK AND MATTAPAN
19 JAMAICA PLAIN AND, ROSLINDALE
20 WEST ROXBURY, ROSLINDALE
21 BRIGHTON, SOUTH
22 BRIGHTON, NORTH

WARDS, CITY OF BOSTON

Table 4-6

SALES PRICE, ASSESSED VALUE, AND ASSESSMENT TO SALES PRICE RATIO TRENDS FOR RESIDENTIAL PROPERTY IN BOSTON AND ITS WARDS, 1955-1975

BOSTON

YEAR	SALES	ASSESS	A/S
1955	1.000	1.000	1.000
1956	1.048	1.004	0.959
1957	1.059	1.014	0.958
1958	1.103	1.031	0.935
1959	1.203	1.000	0.831
1960	1.188	1.004	0.845
1961	1.248	1.021	0.818
1962	1.261	1.006	0.798
1963	1.365	1.013	0.742
1964	1.430	1.026	0.717
1965	1.567	1.030	0.657
1966	1.558	1.028	0.660
1967	1.650	1.018	0.617
1968	1.704	1.039	0.610
1969	1.819	1.041	0.572
1970	2.024	1.037	0.512
1971	2.025	1.069	0.528
1972	2.280	1.063	0.466
1973	2.468	1.085	0.440
1974	2.495	1.120	0.449
1975	2.487	1.140	0.459

WARD 1

YEAR	SALES	ASSESS	A/S
1955	1.000	1.000	1.000
1956	1.067	1.017	0.953
1957	1.058	1.006	0.950
1958	1.144	1.006	0.879
1959	1.145	1.024	0.895
1960	1.106	1.009	0.912
1961	1.381	1.055	0.764
1962	1.234	1.011	0.819
1963	1.385	1.010	0.730
1964	1.526	1.016	0.666
1965	1.717	1.042	0.607
1966	1.611	1.024	0.635
1967	1.609	0.982	0.611
1968	1.869	0.988	0.529
1969	1.743	1.046	0.600
1970	2.241	1.031	0.460
1971	2.467	1.048	0.425
1972	2.801	1.042	0.372
1973	3.118	1.078	0.346
1974	3.370	1.115	0.331
1975	3.270	1.084	0.332

WARD 2

YEAR	SALES	ASSESS	A/S
1955	1.000	1.000	1.000
1956	0.937	0.902	0.962
1957	0.816	1.003	1.229
1958	1.172	0.968	0.826
1959	1.166	0.976	0.837
1960	1.032	1.042	1.010
1961	1.128	1.049	0.929
1962	1.196	0.992	0.829
1963	1.213	0.987	0.813
1964	1.315	0.994	0.756
1965	1.533	1.022	0.667
1966	1.961	1.011	0.515
1967	1.819	0.973	0.535
1968	1.733	1.007	0.581
1969	2.545	0.993	0.390
1970	3.140	0.952	0.303
1971	2.751	0.997	0.362
1972	3.797	1.016	0.268
1973	3.860	1.052	0.272
1974	4.792	1.043	0.218

WARD 3

YEAR	SALES	ASSESS	A/S
1955	1.000	1.000	1.000
1956	0.896	1.063	1.185
1957	1.695	1.034	0.610
1958	1.407	1.069	0.760
1959	1.673	0.866	0.518
1960	1.934	1.047	0.541
1961	1.573	0.939	0.597
1962	1.774	0.958	0.540
1963	1.607	1.081	0.673
1964	1.586	1.030	0.650
1965	1.803	1.027	0.569
1966	1.778	1.094	0.615
1967	2.486	1.055	0.424
1968	2.872	1.007	0.351
1969	2.930	1.058	0.361
1970	3.776	1.137	0.301
1971	2.970	0.962	0.324
1972	4.862	1.127	0.232
1973	4.466	1.247	0.279
1974	5.317	1.336	0.251

Table 4-6 (continued)

'ARD 4

EAR	SALES	ASSESS	A/S
955	1.000	1.000	1.000
956	1.205	1.112	0.923
957	0.916	1.233	1.347
958	1.003	1.316	1.312
959	1.007	1.027	1.020
960	0.892	1.019	1.143
961	1.269	1.119	0.882
962	1.041	1.116	1.071
963	1.378	1.122	0.814
964	1.334	1.144	0.858
965	1.646	1.072	0.651
966	2.039	1.038	0.509
967	1.967	1.083	0.550
968	2.194	1.214	0.553
969	2.703	1.225	0.453
970	3.428	1.079	0.315
971	3.315	1.502	0.453
972	4.242	1.481	0.349
973	4.325	1.508	0.349
974	4.353	1.792	0.412
975	4.272	2.094	0.490

WARD 5

YEAR	SALES	ASSESS	A/S
1955	1.000	1.000	1.000
1956	1.151	0.993	0.863
1957	1.281	1.035	0.808
1958	1.208	1.101	0.911
1959	1.489	1.036	0.696
1960	1.579	1.079	0.683
1961	1.680	1.092	0.650
1962	1.816	1.091	0.601
1963	1.969	1.088	0.553
1964	2.208	1.125	0.509
1965	2.480	1.209	0.487
1966	2.442	1.274	0.522
1967	2.846	1.201	0.422
1968	2.793	1.239	0.444
1969	3.154	1.282	0.406
1970	3.731	1.315	0.352
1971	3.324	1.361	0.409
1972	3.596	1.376	0.382
1973	4.129	1.459	0.353
1974	3.679	1.520	0.413
1975	3.914	1.492	0.381

ARD 6

EAR	SALES	ASSESS	A/S
955	1.000	1.000	1.000
956	1.023	0.983	0.961
957	1.054	1.013	0.960
958	1.169	0.977	0.836
959	1.262	1.015	0.804
960	1.413	1.003	0.710
961	1.252	1.014	0.810
962	1.303	1.001	0.768
963	1.449	1.006	0.694
964	1.492	0.998	0.668
965	1.402	0.997	0.712
966	1.639	1.017	0.621
967	1.806	0.982	0.544
968	2.032	1.021	0.502
969	2.006	0.997	0.497
970	2.108	1.016	0.482
971	2.573	1.002	0.389
972	2.468	0.968	0.392
973	2.953	1.023	0.346
974	3.025	1.031	0.341
975	4.043	1.094	0.271

WARD 7

YEAR	SALES	ASSESS	A/S
1955	1.000	1.000	1.000
1956	0.816	1.295	1.587
1957	0.883	1.217	1.379
1958	0.923	1.123	1.217
1959	1.039	1.139	1.096
1960	0.948	1.147	1.210
1961	1.191	1.153	0.968
1962	0.937	1.166	1.245
1963	1.218	1.231	1.010
1964	1.210	1.179	0.975
1965	1.280	1.123	0.878
1966	1.316	1.232	0.936
1967	1.192	1.102	0.924
1968	1.497	1.107	0.739
1969	1.566	1.387	0.886
1970	1.617	1.114	0.689
1971	1.751	1.241	0.708
1972	2.156	1.302	0.604
1973	2.351	1.254	0.533
1974	2.452	1.266	0.516
1975	1.973	1.308	0.663

Table 4-6 (continued)

WARD 8 & 9

YEAR	SALES	ASSESS	A/S
1955	1.000	1.000	1.000
1956	0.821	0.943	1.148
1957	0.766	1.011	1.319
1958	1.478	0.987	0.668
1959	1.347	0.976	0.725
1960	1.316	1.021	0.775
1961	0.597	1.089	1.824
1962	0.964	1.020	1.058
1963	0.887	1.037	1.169
1964	0.755	0.980	1.298
1965	1.039	0.963	0.927
1966	1.182	0.990	0.837
1967	1.235	1.015	0.822
1968	1.151	1.022	0.888
1969	1.451	0.977	0.674
1970	1.588	1.021	0.643
1971	1.657	0.946	0.571
1972	1.600	1.021	0.638
1973	1.544	1.009	0.653
1974	2.327	1.015	0.436
1975	1.426	0.969	0.680

WARD 10

YEAR	SALES	ASSESS	A/S
1955	1.000	1.000	1.000
1956	1.046	1.035	0.989
1957	0.920	0.986	1.072
1958	1.116	1.030	0.922
1959	1.372	0.987	0.719
1960	0.993	0.991	0.998
1961	1.306	0.994	0.761
1962	1.290	0.977	0.757
1963	1.608	0.992	0.617
1964	1.420	0.991	0.698
1965	1.207	0.991	0.821
1966	1.354	0.936	0.691
1967	1.316	0.963	0.732
1968	1.554	0.984	0.634
1969	1.467	0.990	0.675
1970	1.838	1.000	0.544
1971	1.546	0.966	0.624
1972	1.597	0.990	0.620
1973	1.960	1.065	0.544
1974	1.708	0.987	0.578
1975	1.462	0.994	0.680

WARD 11

YEAR	SALES	ASSESS	A/S
1955	1.000	1.000	1.000
1956	1.232	0.999	0.811
1957	0.969	0.886	0.914
1958	1.237	0.979	0.791
1959	1.276	0.992	0.777
1960	1.110	0.957	0.863
1961	1.162	0.952	0.819
1962	1.323	0.992	0.750
1963	1.315	0.977	0.743
1964	1.368	0.998	0.729
1965	1.442	0.991	0.687
1966	1.348	0.961	0.713
1967	1.697	0.994	0.586
1968	1.381	1.003	0.726
1969	1.655	1.000	0.604
1970	1.337	0.949	0.710
1971	1.758	0.994	0.565
1972	1.529	0.985	0.644
1973	1.774	0.994	0.560
1974	1.619	1.027	0.634
1975	1.533	1.001	0.653

WARD 12

YEAR	SALES	ASSESS	A/S
1955	1.000	1.000	1.000
1956	1.236	0.989	0.800
1957	1.068	1.156	1.083
1958	1.078	0.973	0.902
1959	1.168	1.080	0.925
1960	1.052	0.783	0.745
1961	1.083	1.017	0.938
1962	1.302	1.061	0.815
1963	1.168	0.938	0.803
1964	1.370	0.971	0.709
1965	1.534	0.993	0.647
1966	1.016	0.909	0.894
1967	1.122	0.929	0.828
1968	1.357	0.878	0.647
1969	1.503	0.838	0.558
1970	1.678	0.794	0.473
1971	1.339	0.800	0.598
1972	1.653	0.815	0.493
1973	1.639	0.869	0.530
1974	1.626	0.854	0.525
1975	1.914	0.839	0.439

Table 4-6 (continued)

WARD 13

YEAR	SALES	ASSESS	A/S
1955	1.000	1.000	1.000
1956	1.215	1.059	0.872
1957	1.112	1.095	0.984
1958	1.347	1.067	0.792
1959	1.520	1.231	0.810
1960	1.477	0.944	0.639
1961	1.440	1.031	0.716
1962	1.494	1.109	0.742
1963	1.694	1.033	0.610
1964	1.582	0.994	0.628
1965	1.631	1.022	0.627
1966	1.710	1.038	0.607
1967	1.723	0.982	0.570
1968	1.630	1.155	0.709
1969	1.767	0.976	0.552
1970	1.367	1.002	0.733
1971	1.653	1.034	0.626
1972	1.792	0.975	0.544
1973	1.918	0.926	0.483
1974	1.997	0.981	0.491
1975	1.588	0.967	0.609

WARD 14

YEAR	SALES	ASSESS	A/S
1955	1.000	1.000	1.000
1956	1.212	0.986	0.813
1957	1.097	0.967	0.881
1958	1.039	0.967	0.930
1959	1.234	0.971	0.787
1960	1.203	0.989	0.822
1961	0.967	1.040	1.076
1962	1.057	0.971	0.919
1963	1.053	0.936	0.889
1964	1.151	0.957	0.832
1965	1.323	0.990	0.749
1966	1.226	0.954	0.778
1967	1.235	0.994	0.805
1968	1.318	0.956	0.726
1969	1.264	0.961	0.760
1970	1.391	0.918	0.660
1971	1.208	0.955	0.791
1972	1.357	0.875	0.645
1973	1.296	0.862	0.665
1974	1.271	0.887	0.697
1975	1.270	0.875	0.689

WARD 15

YEAR	SALES	ASSESS	A/S
1955	1.000	1.000	1.000
1956	0.951	0.933	0.981
1957	1.122	1.021	0.910
1958	1.400	1.005	0.718
1959	1.252	0.997	0.797
1960	1.426	1.024	0.718
1961	1.307	0.971	0.743
1962	1.139	0.953	0.836
1963	1.497	0.977	0.653
1964	1.387	1.000	0.721
1965	1.532	0.995	0.650
1966	1.354	0.983	0.726
1967	1.344	1.017	0.757
1968	1.145	0.958	0.836
1969	1.341	0.881	0.657
1970	1.111	0.998	0.898
1971	1.187	1.014	0.855
1972	1.549	0.979	0.632
1973	1.419	0.984	0.694
1974	1.515	0.996	0.657
1975	1.387	1.052	0.758

WARD 16

YEAR	SALES	ASSESS	A/S
1955	1.000	1.000	1.000
1956	0.918	1.052	1.146
1957	1.077	1.040	0.966
1958	1.118	1.137	1.017
1959	0.912	1.100	1.206
1960	1.085	1.101	1.016
1961	1.110	1.073	0.967
1962	1.147	1.076	0.938
1963	1.235	1.171	0.948
1964	1.254	1.106	0.882
1965	1.335	1.110	0.832
1966	1.203	1.077	0.895
1967	1.463	1.044	0.714
1968	1.298	1.076	0.829
1969	1.426	1.087	0.762
1970	1.313	1.040	0.792
1971	1.372	1.090	0.795
1972	1.546	1.081	0.700
1973	1.660	1.070	0.644
1974	1.635	1.094	0.669
1975	1.605	1.103	0.687

Table 4-6 (continued)

WARD 17

YEAR	SALES	ASSESS	A/S
1955	1.000	1.000	1.000
1956	1.066	0.995	0.934
1957	1.141	1.002	0.878
1958	1.144	1.000	0.875
1959	1.435	1.005	0.700
1960	1.461	0.974	0.667
1961	1.422	0.998	0.702
1962	1.381	0.990	0.717
1963	1.638	1.008	0.615
1964	1.482	0.984	0.664
1965	1.675	1.016	0.606
1966	1.662	1.013	0.610
1967	1.543	1.014	0.657
1968	1.877	0.983	0.523
1969	1.616	1.001	0.619
1970	1.492	0.987	0.662
1971	1.723	1.009	0.586
1972	1.639	0.996	0.608
1973	1.753	1.000	0.571
1974	1.781	1.004	0.564
1975	1.702	1.004	0.590

WARD 18

YEAR	SALES	ASSESS	A/S
1955	1.000	1.000	1.000
1956	1.055	0.997	0.945
1957	1.129	0.946	0.839
1958	1.123	0.992	0.883
1959	1.216	1.002	0.824
1960	1.262	1.013	0.802
1961	1.276	1.005	0.788
1962	1.312	1.003	0.764
1963	1.388	1.022	0.736
1964	1.404	1.007	0.717
1965	1.509	1.010	0.669
1966	1.576	1.009	0.640
1967	1.511	1.017	0.673
1968	1.538	1.034	0.672
1969	1.661	1.016	0.611
1970	1.833	1.029	0.562
1971	1.769	1.045	0.591
1972	1.839	1.042	0.567
1973	1.969	1.033	0.524
1974	2.112	1.023	0.484
1975	1.986	1.026	0.516

WARD 19

YEAR	SALES	ASSESS	A/S
1955	1.000	1.000	1.000
1956	1.070	0.963	0.900
1957	1.155	0.951	0.824
1958	1.143	0.967	0.846
1959	1.123	0.945	0.842
1960	1.147	0.995	0.867
1961	1.301	0.952	0.732
1962	1.271	0.967	0.761
1963	1.358	0.980	0.722
1964	1.402	0.961	0.685
1965	1.399	0.976	0.697
1966	1.506	0.944	0.627
1967	1.495	0.933	0.624
1968	1.444	0.979	0.678
1969	1.566	0.973	0.621
1970	1.673	0.978	0.584
1971	1.707	0.963	0.564
1972	1.805	0.980	0.543
1973	2.022	0.965	0.477
1974	2.023	0.960	0.475
1975	2.091	0.970	0.464

WARD 20

YEAR	SALES	ASSESS	A/S
1955	1.000	1.000	1.000
1956	1.051	0.978	0.930
1957	1.144	0.998	0.873
1958	1.187	0.968	0.815
1959	1.235	0.990	0.801
1960	1.178	0.963	0.817
1961	1.292	0.980	0.759
1962	1.293	0.974	0.753
1963	1.413	0.994	0.703
1964	1.486	0.985	0.663
1965	1.530	1.019	0.666
1966	1.543	0.987	0.639
1967	1.556	1.044	0.671
1968	1.599	1.020	0.638
1969	1.756	1.026	0.584
1970	1.886	1.046	0.555
1971	1.864	1.029	0.552
1972	2.040	1.017	0.499
1973	2.176	1.026	0.471
1974	2.278	1.030	0.452
1975	2.316	1.036	0.447

Table 4-6 (continued)

WARD 21

YEAR	SALES	ASSESS	A/S
1955	1.000	1.000	1.000
1956	1.186	1.086	0.915
1957	1.346	1.079	0.802
1958	1.282	1.073	0.837
1959	1.412	1.039	0.736
1960	1.475	0.976	0.662
1961	1.527	1.037	0.679
1962	1.441	1.040	0.722
1963	1.687	1.030	0.611
1964	1.661	1.051	0.633
1965	1.801	1.070	0.594
1966	1.844	1.098	0.595
1967	1.757	1.083	0.616
1968	1.858	1.026	0.553
1969	2.098	1.034	0.493
1970	2.194	1.046	0.477
1971	2.657	1.087	0.409
1972	2.694	1.040	0.386
1973	2.943	1.103	0.375
1974	3.125	1.288	0.412
1975	3.101	1.149	0.370

WARD 22

YEAR	SALES	ASSESS	A/S
1955	1.000	1.000	1.000
1956	1.131	1.019	0.901
1957	1.179	0.984	0.835
1958	1.211	1.017	0.840
1959	1.191	1.058	0.889
1960	1.288	0.999	0.776
1961	1.261	0.987	0.783
1962	1.353	1.002	0.741
1963	1.458	1.011	0.693
1964	1.514	0.995	0.657
1965	1.660	0.956	0.576
1966	1.591	0.995	0.626
1967	1.620	1.006	0.621
1968	1.857	0.987	0.532
1969	2.027	1.016	0.501
1970	2.232	1.034	0.463
1971	2.134	1.000	0.469
1972	2.415	0.939	0.389
1973	2.664	1.009	0.379
1974	2.766	1.081	0.391
1975	2.824	1.086	0.385

Table 4-7

1975 PRICE-RELATED DIFFERENTIALS FOR BOSTON RESIDENTIAL ASSESSMENTS

Property Type	Ward	Sample Size	Weighted Assess./Price Ratio	Assess./Price Ratio	Price-Related Differential
One-Family	4	25	.172	.206	120
	5	39	.249	.262	105
	6	26	.176	.225	128
	16	40	.216	.233	108
	17	76	.259	.273	105
	18	189	.202	.210	104
	19	57	.211	.223	106
	20	190	.192	.195	102
	22	44	.169	.170	101
	City	869	.209	.239	114
Two-Family	1	36	.188	.221	118
	15	26	.298	.313	105
	16	40	.275	.302	110
	17	81	.296	.314	106
	18	90	.239	.246	103
	19	33	.284	.296	104
	20	43	.208	.213	102
	21	29	.209	.220	105
	22	51	.195	.234	120
	City	580	.239	.288	121
Three-Family	1	54	.220	.249	113
	6	25	.221	.258	117
	7	38	.314	.350	112
	11	31	.408	.584	143
	14	28	.528	.629	119
	15	46	.473	.535	113
	17	46	.380	.408	107
	City	460	.307	.400	130
Condo	3	44	.231	.232	100
	5	163	.254	.256	101
	11	33	.233	.235	101
	City	246	.247	.248	100

Note: Only wards having a sample size of at least 25 are reported. City figures cover all wards.

Table 4-8

COMMERCIAL PROPERTY ASSESSMENT LEVELS IN BOSTON

Ward	1974			1975			1976		
	Assessment To Sales Price Ratio	Weighted A/S Ratio	Sample Size	Assessment To Sales Price Ratio	Weighted A/S Ratio	Sample Size	Assessment To Sales Price Ratio	Weighted A/S Ratio	Sample Size
1	.418	.392	8	.414	.443	13	.399	.366	20
2									
3	.407	.466	26	.505	.531	19	.462	.475	12
4							.540	.575	5
5	.465	.352	11	.378	.369	13	.432	.412	11
6	.281	.159	5				.446	.398	6
7	.502	.576	5						
8							.485	.479	5
9	.508	.595	5	.287	.235	5	.762	.777	5
10									
11	.486	.421	5	.803	.754	8			
12									
13									
14				.790	.630	10			
15	.465	.412	6						
16				.655	.800	5			
17				.502	.541	7			
18	.517	.182	7	.344	.234	8	.417	.301	9
19	.605	.633	8						
20							.375	.493	5
21	.397	.313	6	.473	.419	6	.400	.331	5
22	.319	.367	7	.330	.224	6			
City	.462	.373	113	.519	.443	124	.471	.417	109

Note: Only samples of five or more sales are reported.

Table 4-9

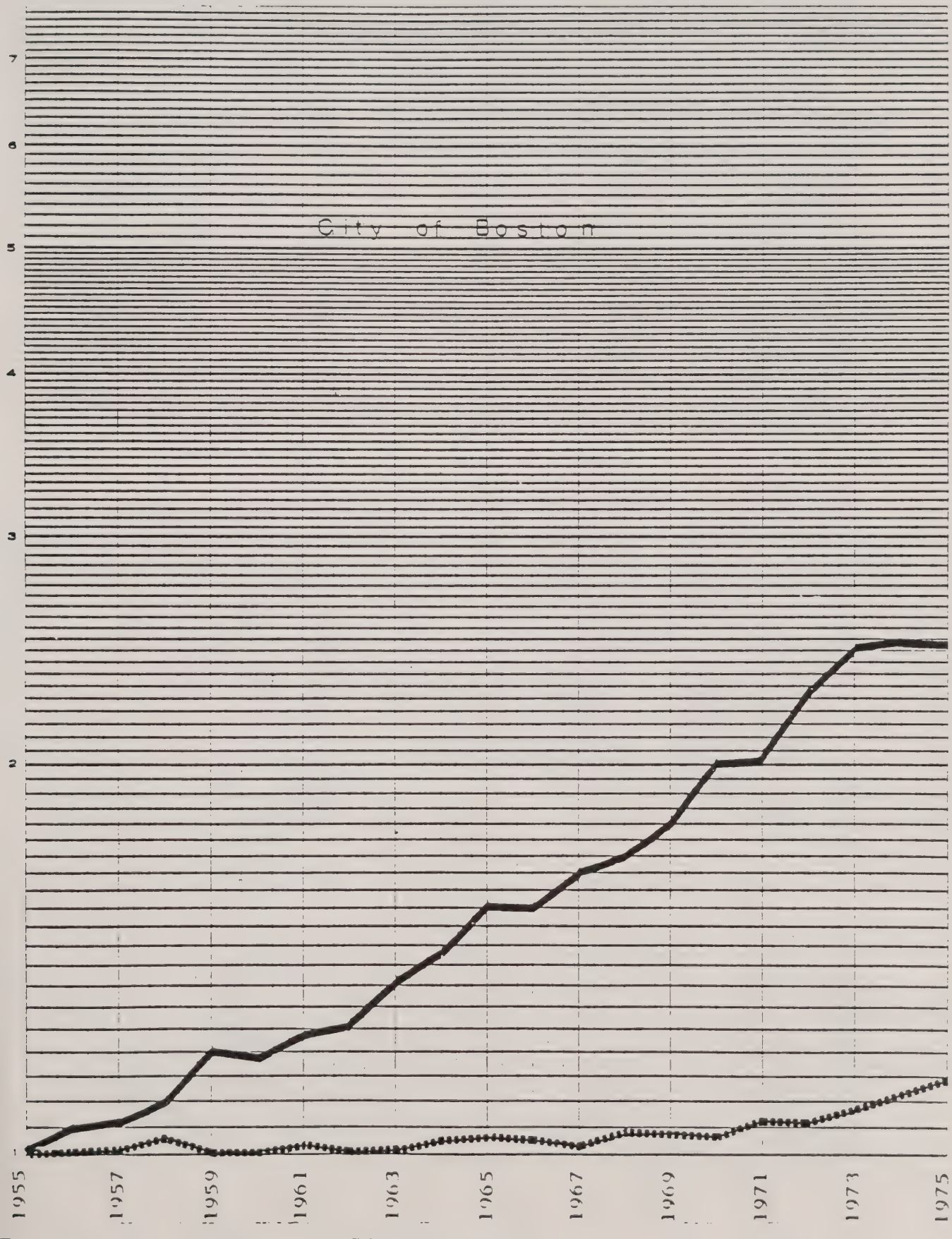
TAXES AND VALUES OF DOWNTOWN BOSTON OFFICE PROPERTIES, 1978

Derivation Of Value		Class A	Class B	Class C
	Gross Rent	$12.35	$7.05	$6.87
adjusted for				
	Vacancy %	7.3%	10.2%	19.6%
equals				
	Effective Gross Income	$11.45	$6.33	$5.52
less				
	Operating Costs	$2.83	$2.54	$2.38
equals				
	Net Income	$8.62	$3.79	$3.14
	Assessed Value	$8.30	$7.85	$6.89
times 25.29% tax rate equals				
	Property Tax	$2.10	$1.79	$1.48
subtracted from Net Income equals				
	Net Operating Income	$6.52	$2.00	$1.66
divided by				
	Capitalization Rate	10%	11%	12%
equals				
	Value	$59.27	$16.67	$12.77
	Tax/Effective Gross Income	18.3%	28.3%	26.8%
	Tax/Net Income	24.4%	47.2%	47.1%
	Assessment/Value Ratio	14%	47%	54%

Notes: All figures are per gross leasable square foot.
Class A space was built since 1960 and totaled 12.26 million square fe of downtown office space.
Class B was built before 1960 but substantially upgraded, and totaled 5.74 million square feet downtown.
Class C was built before 1960, was lower quality, accounted for 16.61 million square feet.
Gross Rent (as of 6/78), Vacancy % (April and October 1978 average), a Operating Cost (10/78) are reported from Michael Matrullo, The Office Industry Survey, Part II, BRA Research, March 1979, Table R1.
Assessed Values and Property Taxes (taxes net of abatements, FY78) wer compiled from Boston Assessing Dept. records for Matrullo's survey sample properties by Larson and Westfield, BRA Research.

Chart 4-2

SALES PRICE AND ASSESSED VALUE TRENDS FOR RESIDENTIAL PROPERTY IN BOSTON AND ITS WARDS, 1955-1975



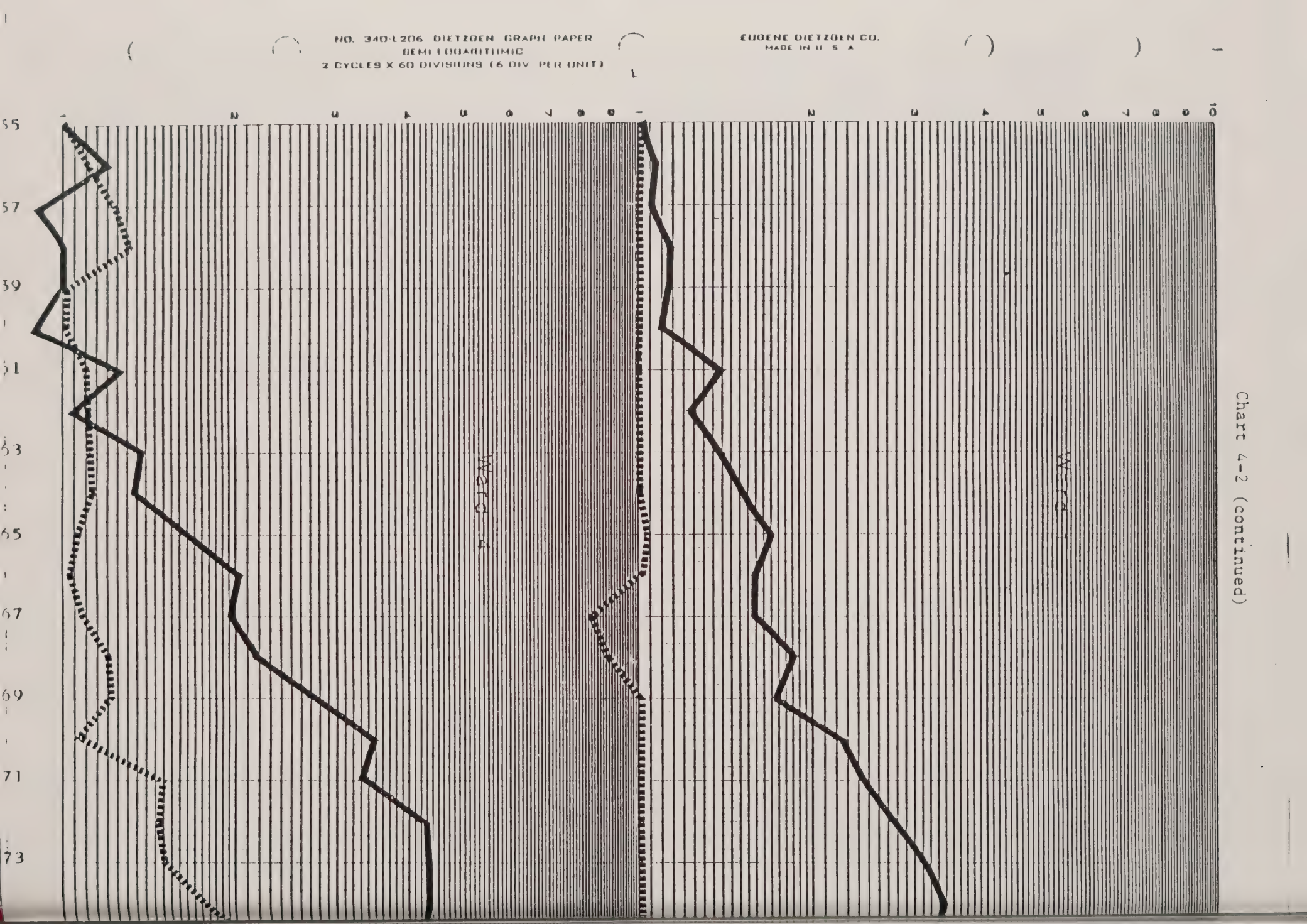


Chart 4-2 (continued)

Chart 4-2 (continued)

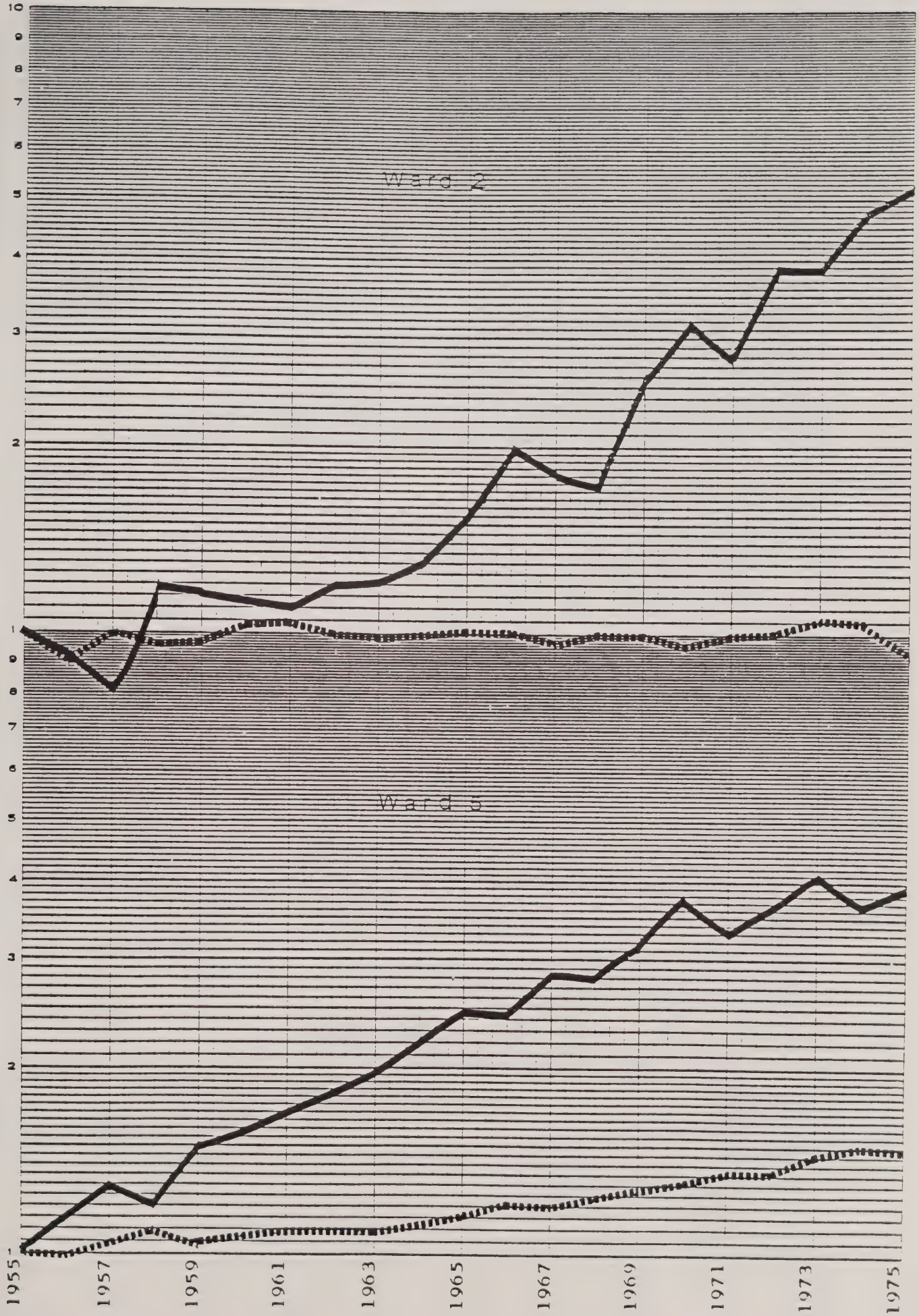
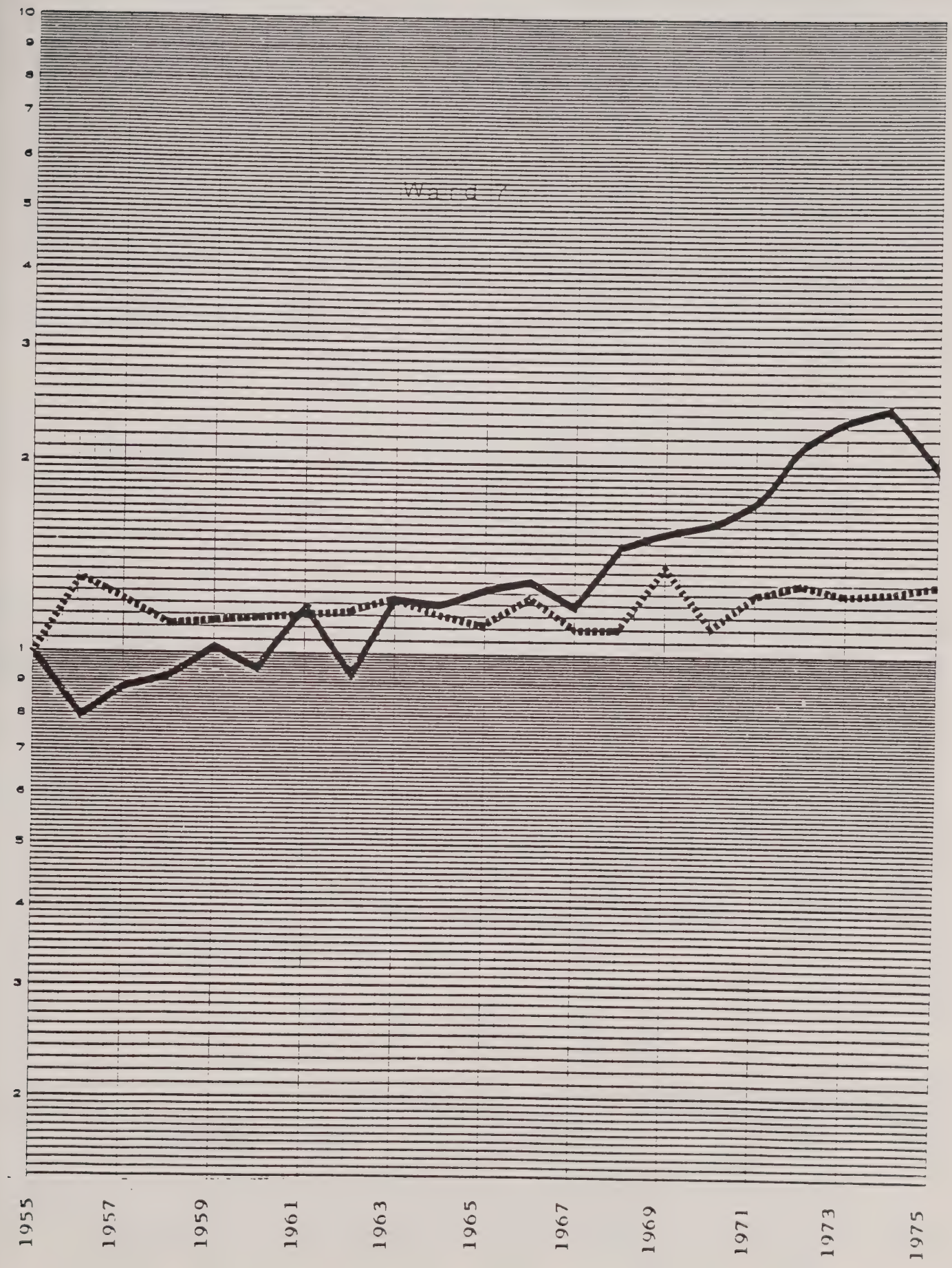


Chart 4-2 (continued)

Chart 4-2 (continued)



NO. 340-L206 DIETZGEN GRAPH PAPER
SEMI-LOGARITHMIC
2 CYCLES X 60 DIVISIONS (6 DIV. PER UNIT)
EUGENE DIETZGEN CO.
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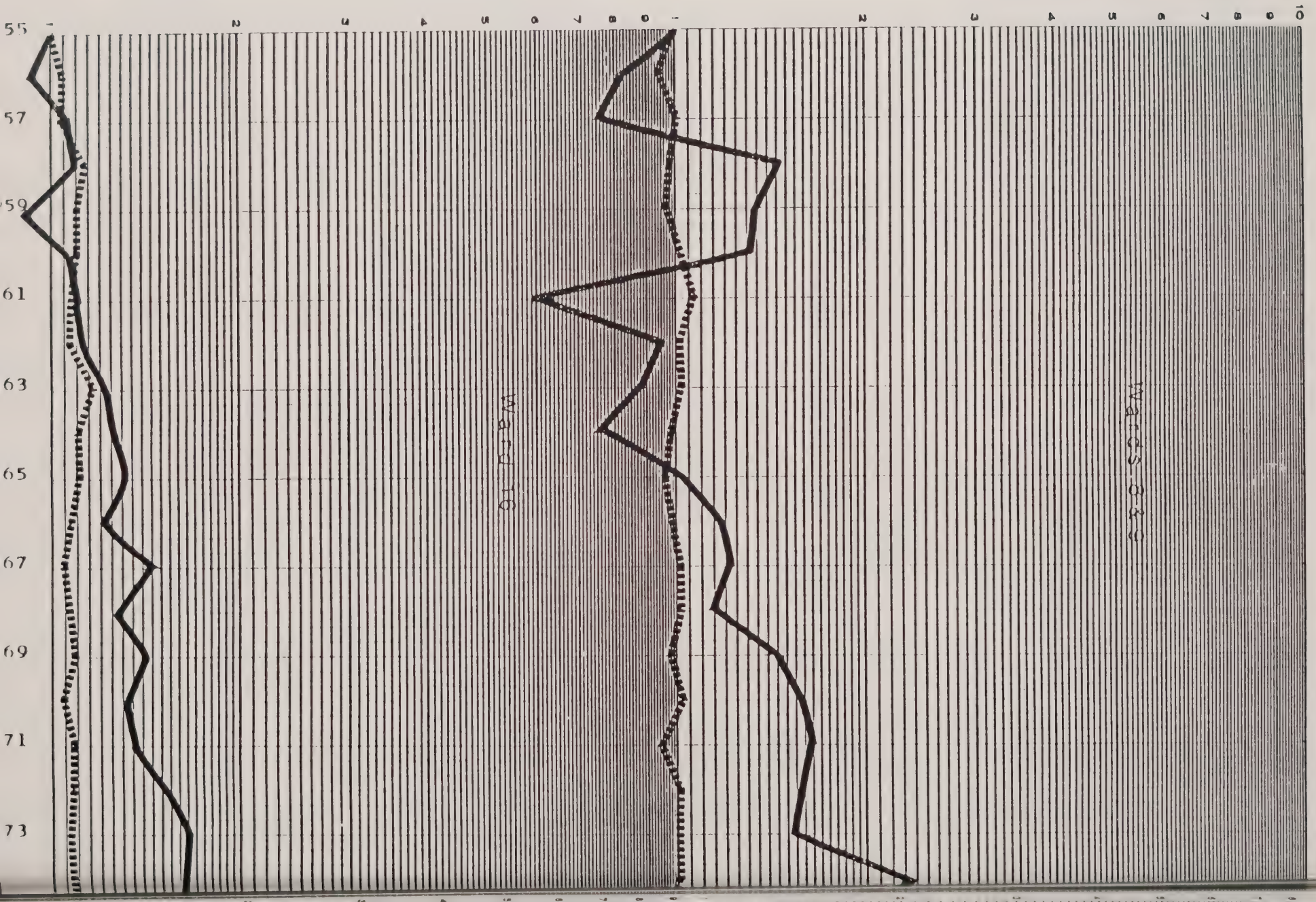


Chart 4-2 (continued)

Chart 4-2 (continued)

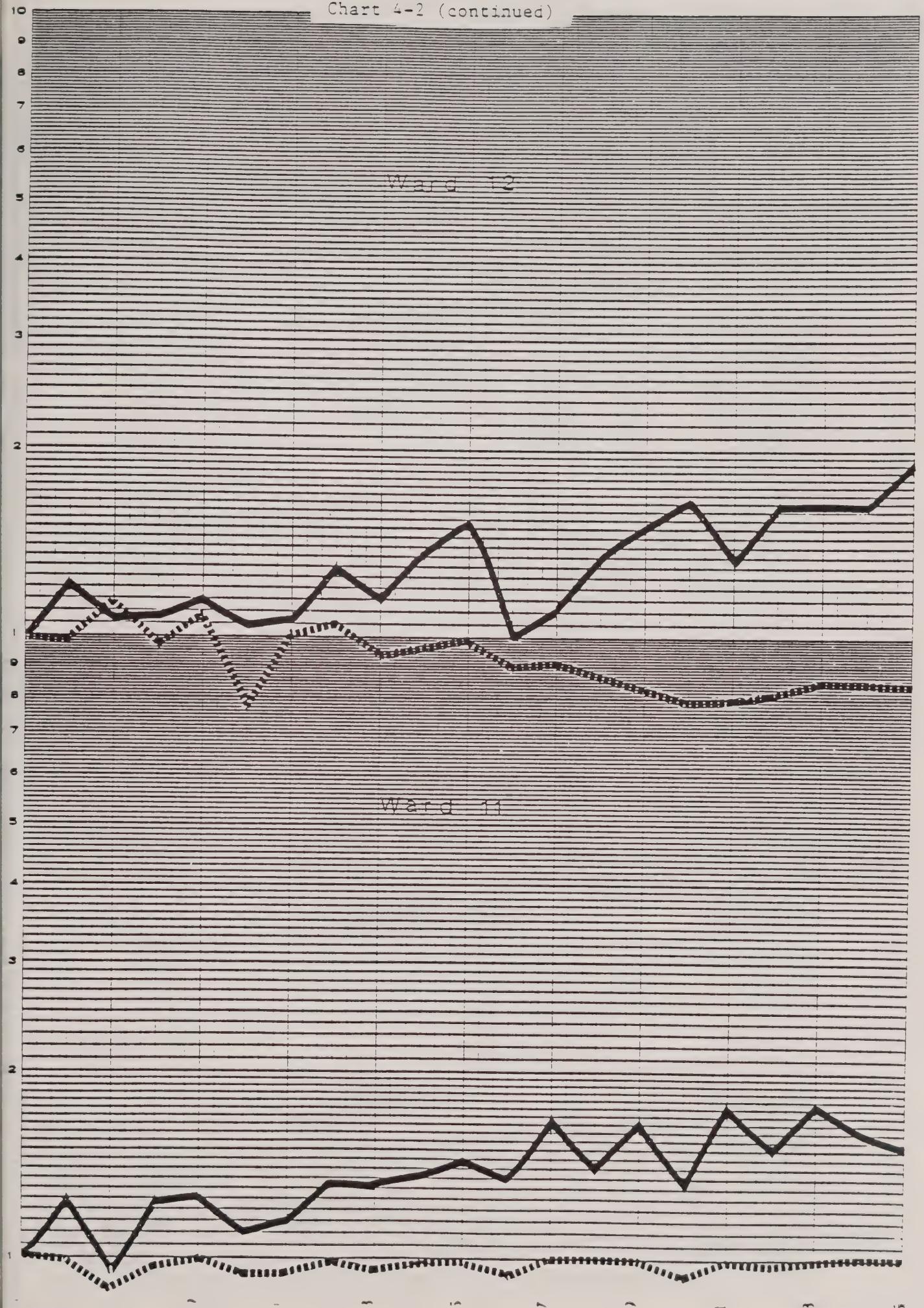


Chart 4-2 (continued)

Chart 4-2 (continued)

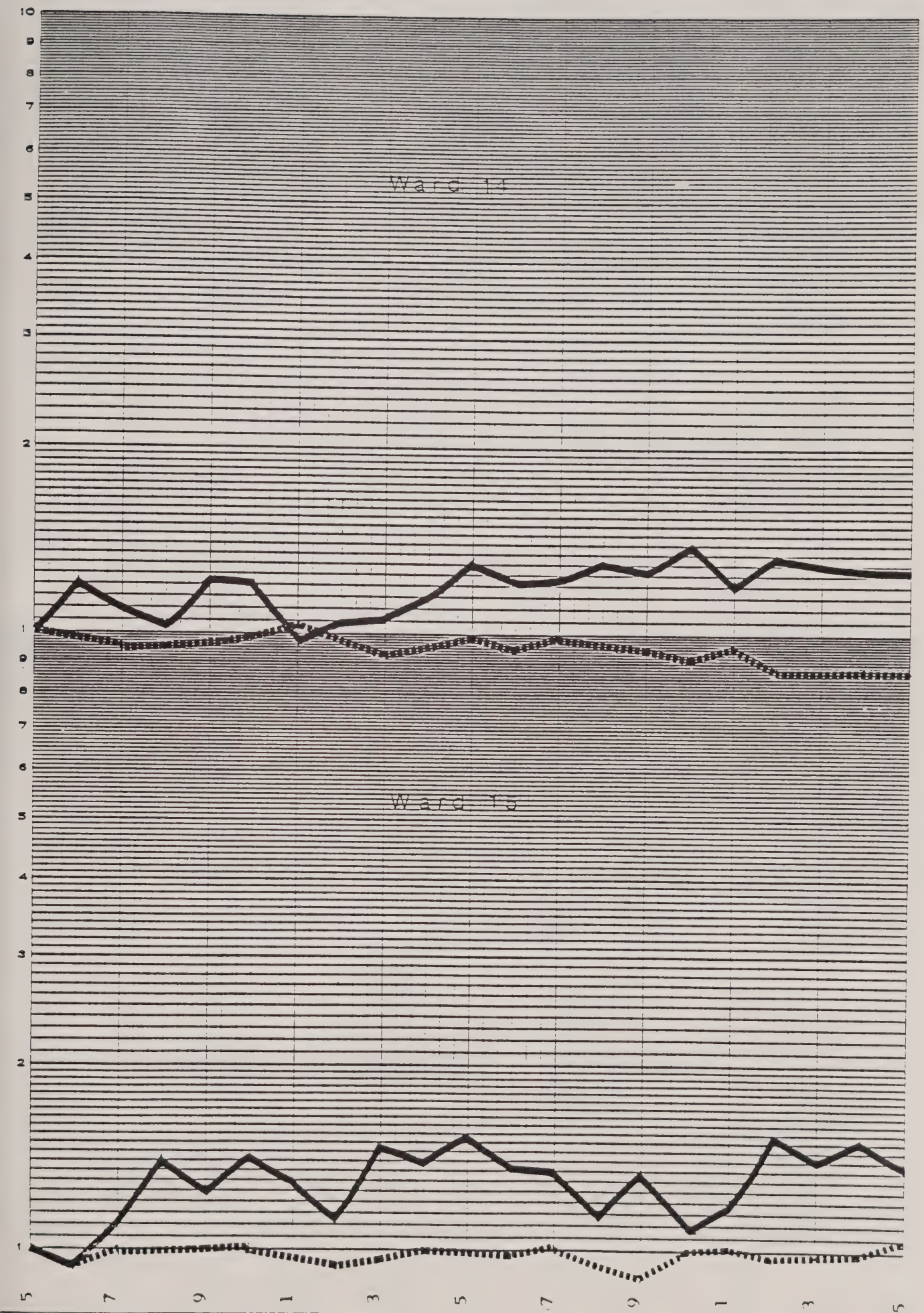
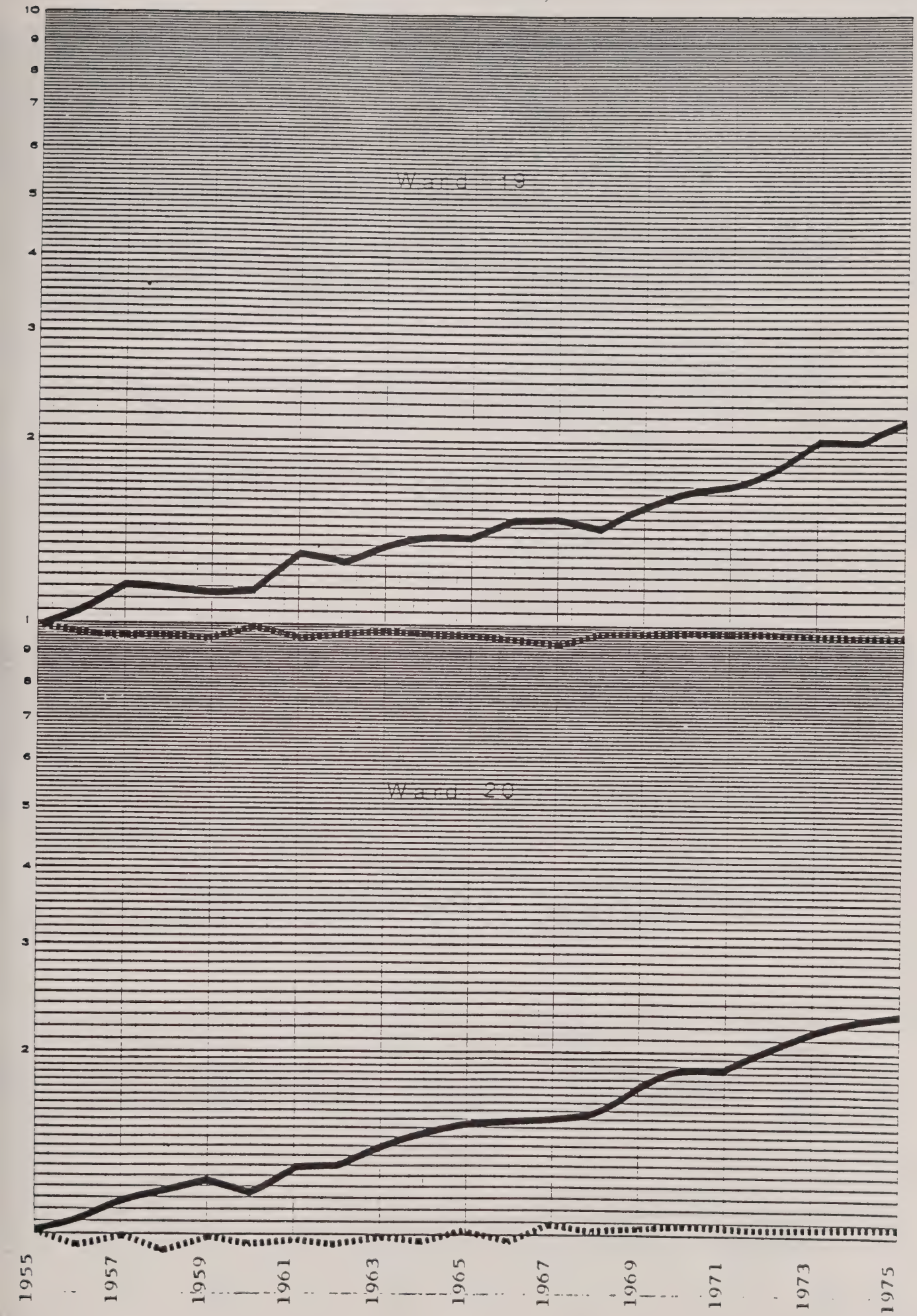


Chart 4-2 (continued)

Chart 4-2 (continued)



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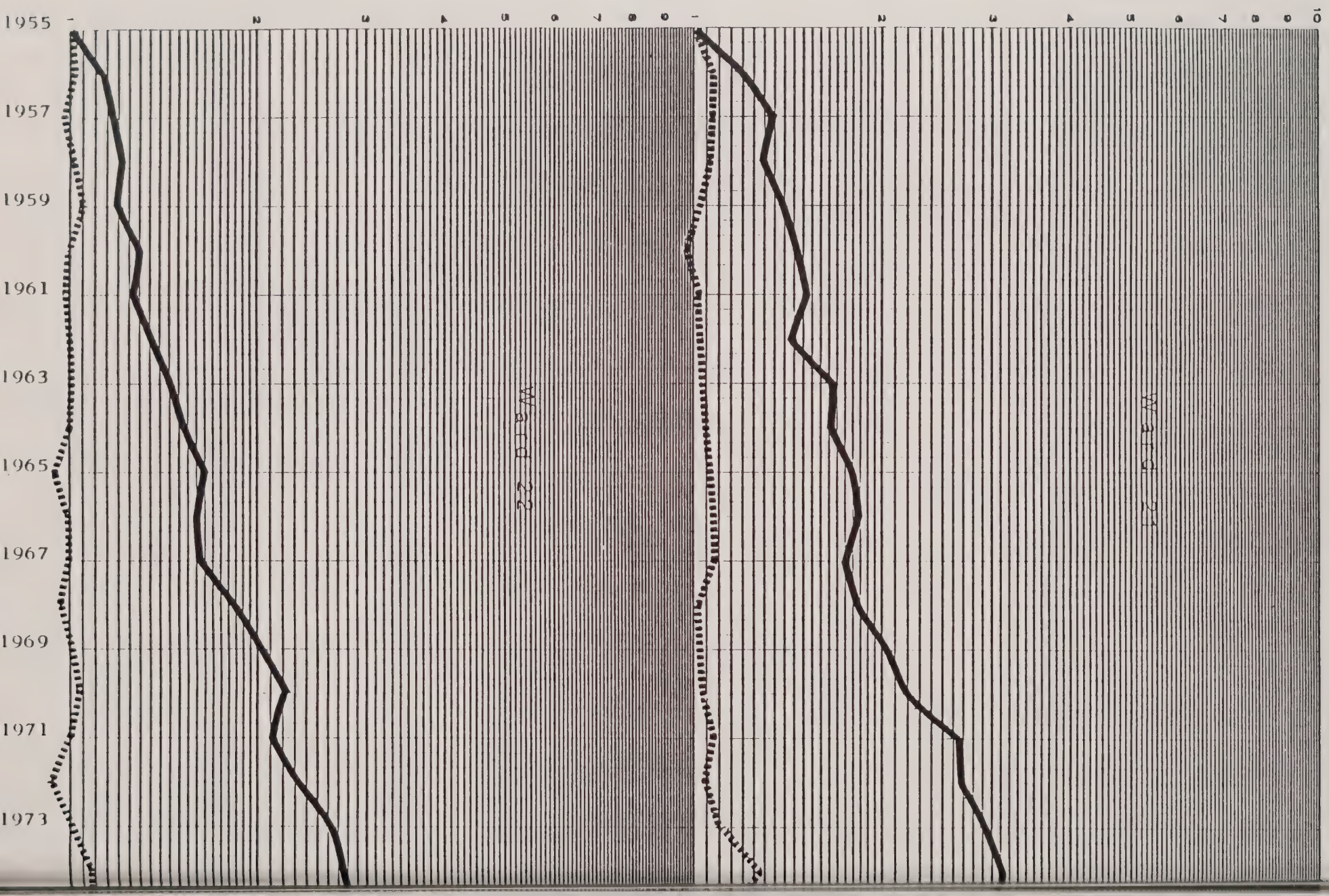
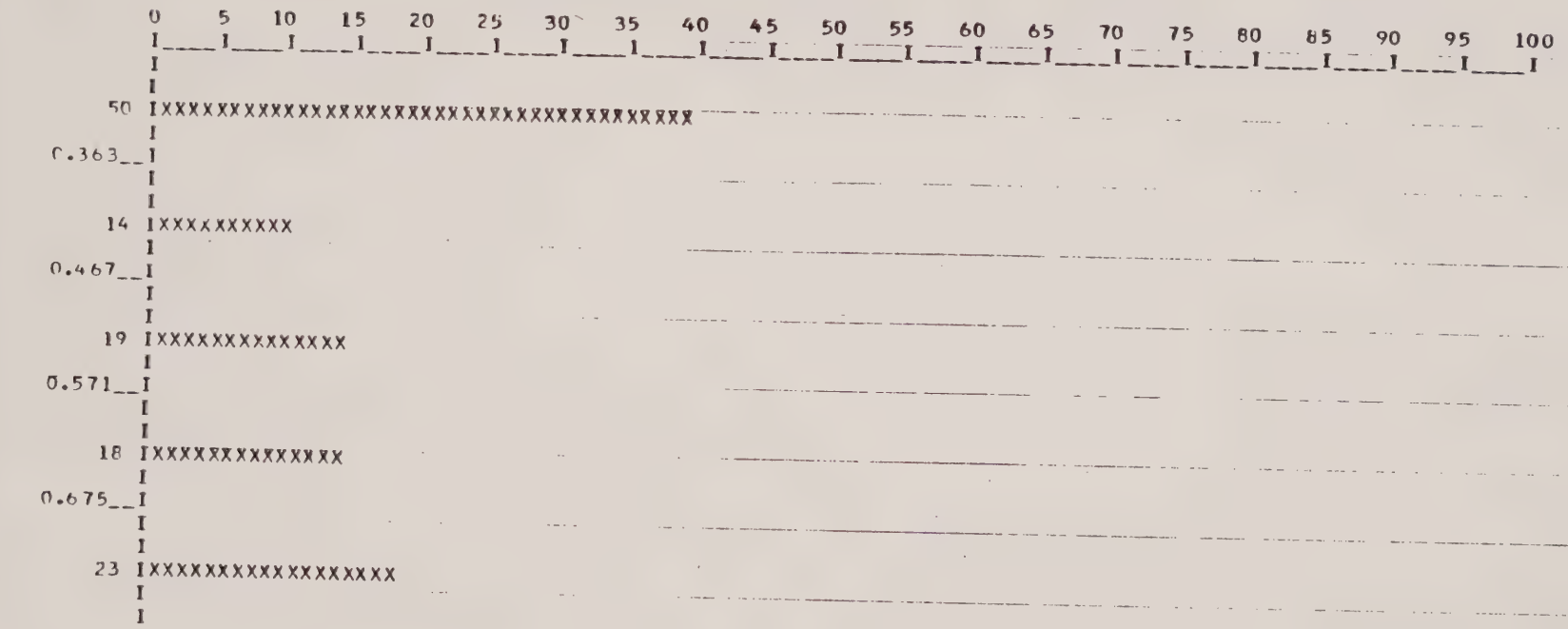


Chart 4-2 (continued)

WARDS 1 - 22 CLASS: COMMERCIAL
1975 ASSESSMENT SALES RATIO

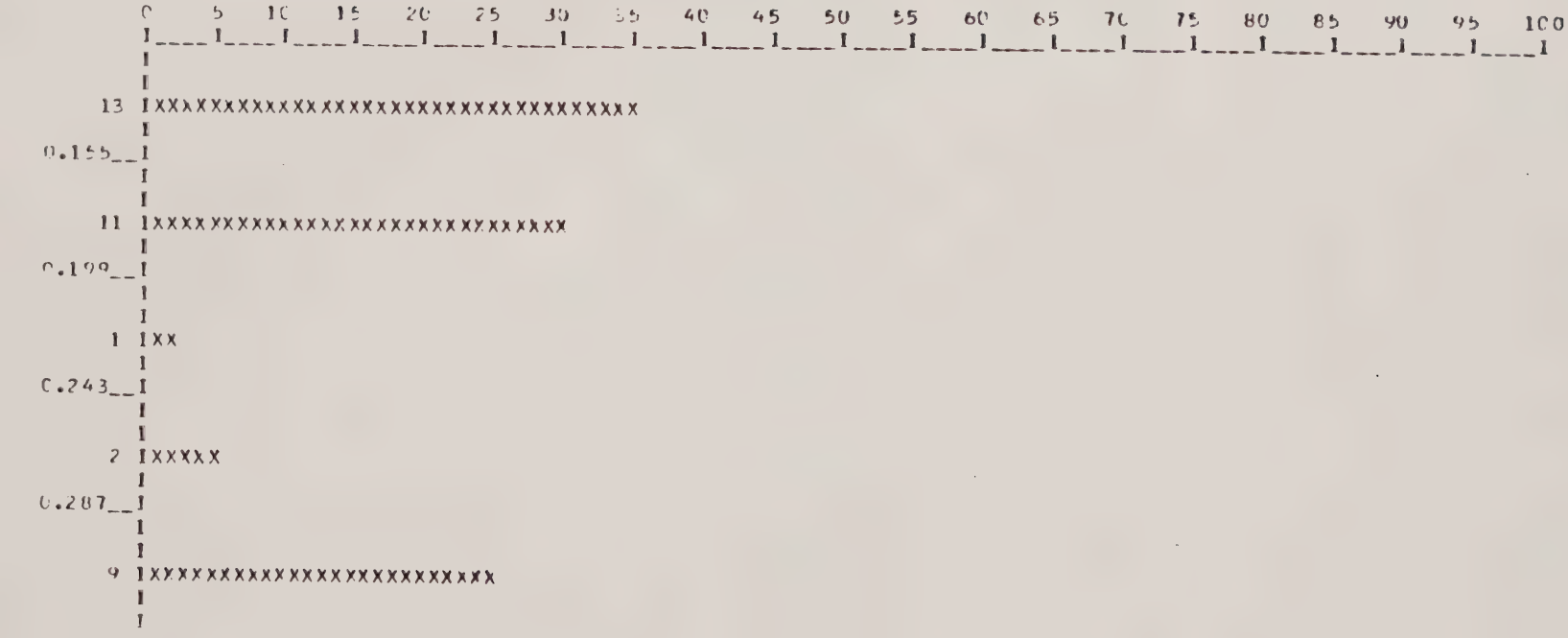
PERCENTAGES



TOTAL VALID OBSERVATIONS	:	124			
RANGE	:	0.072	2.667	ASSESSED VALUES	
MEAN A/S RATIO	:	0.519		500.000	2,710,000.000
STANDARD DEVIATION	:	0.363		74,755.845	
MEAN WEIGHTED A/S RATIO	:	0.443		263,418.736	
STANDARD DEVIATION	:	0.210			
MEDIAN A/S RATI	:	0.450			
COEFFICIENT OF DISPERSION	:	53.283		19,000.000	

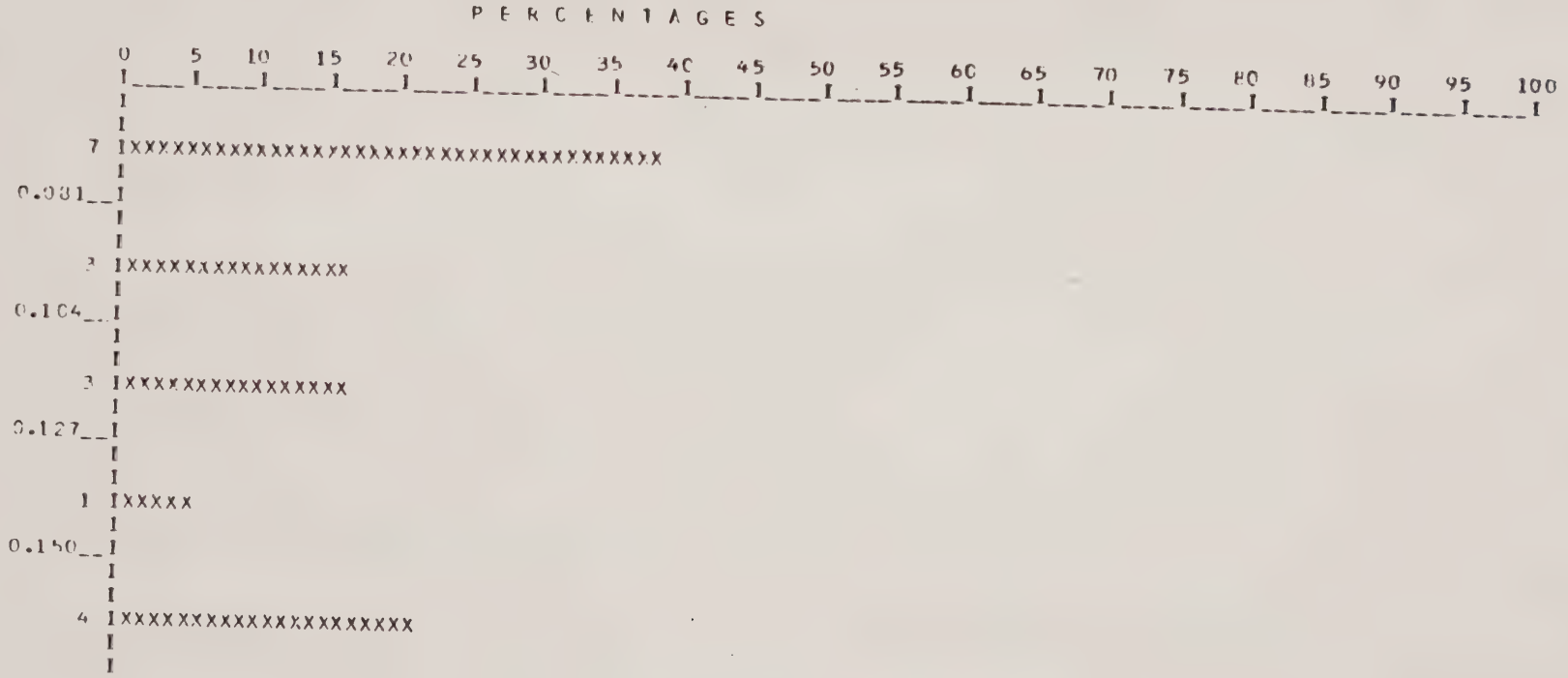
Chart 4-4

WARD 1 CLASS(ES): R2
1975 ASSESSMENT SALES RATIO



TOTAL VALID OBSERVATIONS	:	36			
RANGE	:	0.081	0.825	ASSESSED VALUES 1,000.000	8,500.000
MEAN A/S RATIO	:	0.221		3,797.222	
STANDARD DEVIATION	:	0.141		1,788.451	
MEAN WEIGHTED A/S RATIO	:	0.188			
STANDARD DEVIATION	:	0.106			
MEDIAN A/S RATI	:	0.176		3,200.000	
COEFFICIENT OF DISPERSION	:	46.891			

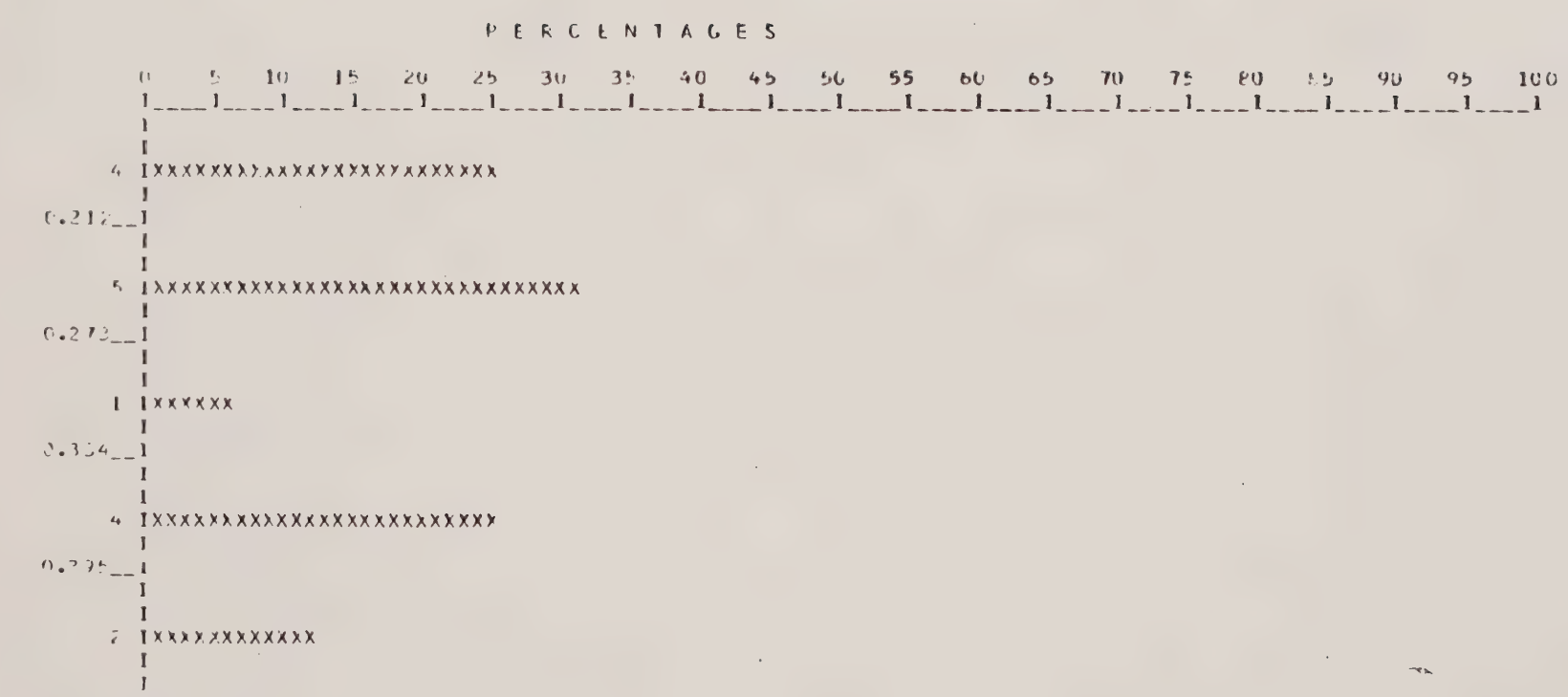
WARD 2 CLASS(ES): R1
1975 ASSESSMENT SALES RATIO



TOTAL VALID OBSERVATIONS :	18		ASSESSED VALUES	
RANGE :	0.035	0.381	600.000	10,000.000
MEAN A/S RATIO :	0.116		2,772.222	
STANDARD DEVIATION :	0.080		2,134.307	
MEAN WEIGHTED A/S RATIO :	0.104			
STANDARD DEVIATION :	0.045			
MEDIAN A/S RATIO :	0.093			
COEFFICIENT OF DISPERSION:	51.434		2,200.000	

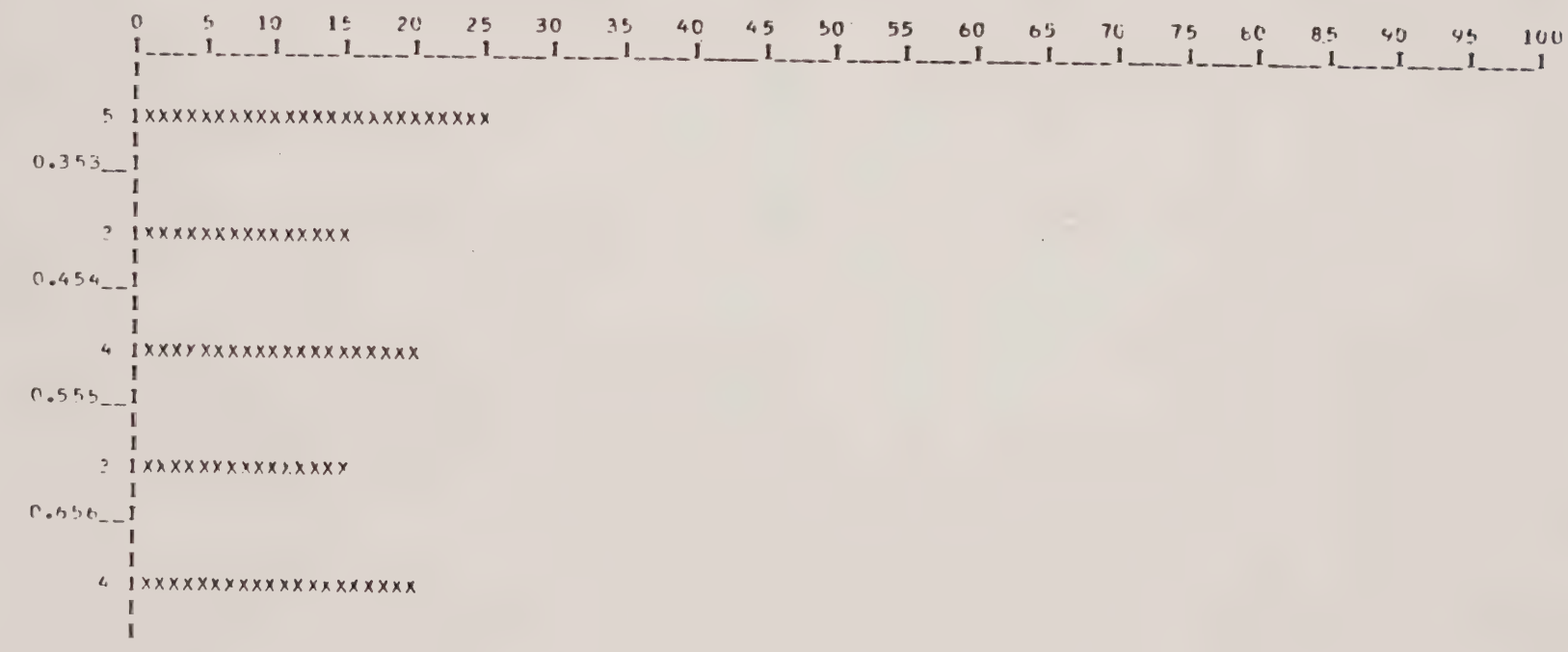
Chart 4-6

WARD 16 CLASS(ES): R3
1975 ASSESSMENT SALES RATIO



TOTAL VALID OBSERVATIONS	:	16		ASSESSED VALUES	
RANGE	:	0.083	0.929	2,500.000	9,500.000
MEAN A/S RATIO	:	0.304		6,856.250	
STANDARD DEVIATION	:	0.187		1,841.274	
MEAN WEIGHTED A/S RATIO	:	0.265			
STANDARD DEVIATION	:	0.121			
MEDIAN A/S RATI	:	0.250		6,500.000	
COEFFICIENT OF DISPERSION	:	42.650			

WARD 3 CLASS(ES): COMMERCIAL
1975 ASSESSMENT SALES RATIO



TOTAL VALID OBSERVATIONS	:	19			
RANGE	:	0.203	0.925	ASSESSED VALUES 10,000.000	2,710,000.000
MEAN A/S RATIO	:	0.505		257,536.342	
STANDARD DEVIATION	:	0.196		628,483.605	
MEAN WEIGHTED A/S RATIO	:	0.531			
STANDARD DEVIATION	:	0.140			
MEDIAN A/S RATI	:	0.479		30,000.000	
COEFFICIENT OF DISPERSION	:	32.590			

5. EQUALIZATION AND CLASSIFICATION

Property taxes seldom receive more attention than they command during revaluation. The question of how taxes will change involves even those whose interest stops at their own bills. Revaluation stands but a year or two in the past or future for most Massachusetts communities; the requirement to equalize tax assessments is being enforced statewide. But "equalized" does not always mean "equal" and property tax classification rules allow not only different tax treatment within communities, but also different applications of the rules among jurisdictions.

This chapter is concerned with describing the rules and simulating the effects of equalization with classification. After introducing the basic terms, we will examine the classification laws with some technical detail. Finally we estimate the practical significance of the classification versus 100 percent choice as it might have affected taxpayers' bills.

Revaluation, Equalization, Classification

The property tax is an ad valorem levy. That is, the tax is intended to be based on each taxable property's "market value", sometimes called "fair cash value." Each tax bill is the product of multiplying a tax rate and an "assessed value" (an official estimate of market value). Where assessed values are not consistently related to market values, tax bills will not be proportional to real property values (this situation is called disproportionment) and the system will not work in the way intended by law. Revaluation is the process of assigning properties with new assessed values. The usual purpose of revaluation is equalization or equal treatment under the law. Equalization can apply both among and within jurisdictions. Since much state aid is distributed to cities and towns on the basis of relative

tax base wealth, consistent measurement of the real tax bases of total taxable market value is needed for equal treatment among local communities. Equalization within a community avoids or remedies disproportionment by bringing assessments and taxes in line with market values so that equal tax treatment laws are observed.

When, in the 1974 "Sudbury decision," the Massachusetts Supreme Judicial Court ordered that all communities equalize, their purpose was to ensure equalization among municipalities by requiring full value assessment equalization within each jurisdiction. At that time, the state constitution called for all properties to be assessed at their full market value (called "100 percent valuation"). In fact, most communities had been assessing at only a fraction of full value and this fraction differed among properties, generally favoring residential property. Although tax rates could differ from town to town in accordance with budgetary needs, the same tax rate had to be used for all types of property within a given jurisdiction. The result in those communities that equalized through revaluation was to raise taxes for previously favored residential property and to lower bills for business property. This prompted the voters to call for a change in the law by passing the classification constitutional amendment in 1978. See Exhibit V-1. This amendment allowed the legislature to pass laws that would require equal tax treatment within but not among classes of property in a jurisdiction. The purpose was to legalize preferential taxation for housing. As soon as the amendment was passed a "shelf bill" enacted in advance of the vote went into effect as law (Chapter 580 of the General Laws of 1978). One year later, before any communities could enact the new law, it was superseded by Chapter 797 of 1979 and new classification rules were established.

Exhibit V-1

HOUSE . . . . . No. 5317

At the request of Mr. Melia of Boston, the Proposal for a legislative amendment to the Constitution authorizing the classification of property according to its use for the purposes of taxation (see Senate, No. 1856 of 1975) (agreed to in joint session of the two Houses of the preceding General Court) was taken from the files of the preceding General Court, Taxation.

The Commonwealth of Massachusetts

In the Year One Thousand Nine Hundred and Seventy-Seven.

PROPOSAL FOR A LEGISLATIVE AMENDMENT TO THE CONSTITUTION AUTHORIZING THE CLASSIFICATION OF PROPERTY ACCORDING TO ITS USE FOR THE PURPOSES OF TAXATION.

A majority of all the members elected to the Senate and House of Representatives, in joint session, hereby declares it to be expedient to alter the Constitution by the adoption of the following Article of Amendment, to the end that it may become a part of the Constitution [if similarly agreed to in a joint session of the next General Court and approved by the people at the state election next following]:

ARTICLE OF AMENDMENT.

ART. . Article IV of chapter 1 of Part the Second of the Constitution is hereby amended by inserting after the words "and to impose and levy proportional and reasonable assessments, rates and taxes, upon all the inhabitants of, and persons resident, and estates lying, within said Commonwealth" the words: — , except that, in addition to the powers conferred under Articles XLI and XCIX of the Amendments, the general court may classify real property according to its use in no more than four classes and to assess, rate and tax such property differently in the classes so established, but proportionately in the same class, and except that reasonable exemptions may be granted.

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The requirement to establish and maintain equalization remains, altho legal equal treatment rules have been changed by classification. The central feature of equalization continues to be the use of reasonably accurate appraisals of market values as the basis for assessed values. In fact, both the initial and the present classification laws require the certification of property market value appraisals before tax classification schedules may be used. It also continues to hold true that equalization itself does not raise or lower total taxes, it just changes the way the total burden is distributed.

Classification is now an integral part of property tax history and future in Massachusetts. The 1978 shelf bill was the alternative chosen by the voters over the old standard of single rate taxation at full value assessment. The 1979 law promises to shape the future distribution of property tax burdens. The following sections of this chapter are devoted to examination of these two laws.

Classification Comparisons

The classes established by both laws are very similar, differing in name (Class 1, Class 2, etc.) rather than composition. These are the class descriptions under the current legislation:

Class One - Residential includes homes, apartments, lodging houses, etc., but does not include hotels and motels.

Class Two - Open Space is land "not held for the production of income, but.....maintained in an open or natural condition and which contributes significantly to the benefit and enjoyment of the public." This does not include land taxable under a permanent conservation restriction or other special provisions.

Class Three - Commercial includes most income properties except apartment and industrial

Class Four - Industrial

Personal property is a separate class.

The earlier law, Chapter 580 of 1978, called for the use of a single tax rate within a jurisdiction, but specified that each community must assess properties in different classes at different assessment/market value ratios. The proportionment percentages (assessment/value ratios) were to be uniform throughout the state as was a residential exemption of $5,000 to be subtracted from the after-proportionment assessed value of each residential parcel. Another feature of the old law, repealed by the newer legislation, was the replacement of utility property taxes with a new excise tax initially equal to the property taxes that utilities had been paying.

The present law, Chapter 797 of 1979, requires that all property be assessed uniformly at full value but allows that a city or town may tax different classes at different tax rates. Limits are placed on how different these rates may be, but the choice of rates within these limits is a local option decision. Another limited local option choice is the use of a residential exemption to favor lower-priced, owner-occupied housing. The present law also established new standards for the granting of abatement relief (refunds for over-taxation) during an interim period prior to equalization.

Chapter 580 of 1978: Short-lived and Unutilized

While Chapter 580 of 1978 was never implemented, it nonetheless has played a significant role. Election campaigns for and against the classification amendment were largely based on this law's anticipated effects. The text of this legislation comprises Appendix 5-A in the second volume of this report.

The classes and associated assessment/value ratios that were to become effective on or after Jan. 1, 1979 in equalized communities were:

1. Residential	40%
2. Commercial	50%
3. Industrial	55%
4. Open Space	25%
Personal Property	100%

In addition, each Residential parcel would receive a $5,000 reduction from the 40 percent level. This exemption was additional to all other existing exemptions (e.g., elderly, widow, veteran).[1] However, under no circumstances may the assessed value have gone below ten percent of full market value.

Open space was defined as conservation land and designation required a non-development contract with the local assessor stipulating a retroactive assignment to another class, with attendant back taxes due, should the contract be broken and the land developed. Vacant land that did not qualify as Open Space would be placed in the class appropriate to its zoning and suitable development use. Personal property[2] was to be assessed at full value. But much of Personalty is utility equipment[3] and and a "hold harmless" amendment to the classification law exempted all real and personal property of gas and electric companies from the property tax. Utility property would have been subject to a special new tax that was designed to keep their share of overall local tax burden at the same level it held in Fiscal Year 1978, subject to the growth or decline of "book value."

The Utility Excise Provision of 1978 Classification

Section 19A of the Chapter 580 classification law (Appendix 5-A, Volume II) specified that regulated gas and electric utility property would be exempt from the property tax and subject instead to a special

that looks much like the property tax. The motive for this could be found in the facts that much utility property is personalty (as opposed to realty) and that personal property was to be assessed at a level about twice that of real estate. Consequently, utilities would have experienced substantial tax increases under Chapter 580 classified equalization without the "hold harmless" protection offered by this section of the law.

The utility excise tax bill was defined as the product of the current property tax rate and a specially calculated "assessed value". This "assessed value" would be set by multiplying utility property current net book value by a special "assessment factor". A close look at the utility excise formula shows that it was not quite what it appeared to be. The tax would have been unaffected by property tax rates per se, depending instead on utility net book value and the combined levies from this excise and the property tax. In fact, the property tax rate would be an outcome rather than an input in setting utility taxes. Furthermore, net book value could decline through depreciation even if "market value" figured by some other means were rising.

Key:

We will use these symbols to describe the workings of the utility cise tax.

AVu(78) = 1978 Assessed Value of all utility property (real and personal).

AVn(78) = 1978 Assessed Value of all taxable non-utility property. These properties will constitute the new property tax base after the removal of utilities.

BVu(78) = Book Value of all utility property in 1978.

BVu(c) = current Book Value of all utility property.

AVn(c) = current Assessed Value of all taxable non-utility property under classification.

$r(c)$ = current local tax rate.

$Tu(c)$ = current utility excise Tax.

$Tp(c)$ = current non-utility property Tax levy

$LC(c)$ = current Combined utility and property tax Levies ($LC(c) = Tu($

The Formula:

The Assessing Fraction $F = \frac{AVu(78)}{BVu(78)} \cdot \frac{AVn(c)}{AVn(78)}$

and utility taxes $Tu(c) = F \times BVu(c) \times r(c)$

now $r(c) = \frac{LC(c) - Tu(c)}{Avn(c)}$

since the property tax base is the property tax levy divided by the pro

tax base. So $Tu(c) = \frac{AVu(78)}{BVu(78)} \cdot \frac{AVn(c)}{AVn(78)} \cdot BVu(c) \cdot \left[\frac{LC(c)}{AVn(c)} - \frac{Tu(c)}{AVn(c)}\right]$

which simplifies to

$$Tu(c) = LC(c) \cdot \frac{AVu(78) \cdot BVu(c)}{BVu(78) \cdot AVn(78) + AVu(78) \cdot BVu(c)}$$

We find

$$Tu(c) = LC(c) \cdot \left[\frac{AVu(78)}{AVn(78) \cdot (BVu(78)/BVu(c)) + AVu(78)}\right]$$

The bracketed fraction represents the share of combined levy requiremen that utilities will pay. If their book value does not change ($BVu(78)/BVu(c)$ = their share remains the same as it was in 1978 since their share of taxes is then their share of the 1978 property tax assessed value base. If book value increases ($BVu(78) < BVu(c)$) their share of overall tax burden increases, while their share of payments drop if book value falls.

Notice that the current tax base of non-utility property assessments ($AVn(c)$) would not have influenced the utilities' tax bill. The only current factors that could influence their tax bill are book value and combined levy. Although the combined levy would affect their bill, the property tax rate <u>per se</u> would not.

The Tax Rate:

Let us see how the tax rate (r(c)) that would have applied to both utility excise and property taxes might have been figured. The sum of utility taxes and property taxes must equal the combined levy requirement.

$$LC(c) = Tu(c) + Tp(c)$$

$$LC(c) = r(c) \cdot BVu(c)F + r(c) \cdot AVn(c)$$

so

$$r(c) = \frac{LC(c)}{\frac{BVu(c) \cdot AVu(78) \cdot AVn(c)}{BVu(78) \cdot AVn(78)} + AVn(c)}$$

Massachusetts' initial property tax classification law appeared very simple and straightforward on its surface. Since the four class proportionment factors were presented as assessment/value ratios, voters could understand the proposed new equalization rules in terms of the disproportionate systems they had been experiencing. Discussion over the constitutional amendment that was to be approved in the November, 1978 election focused on anticipated tax burden changes that would attend equalization with or without this "shelf bill" legislation.

Beneath the surface, the law was made quite complex by the utility excise provision. The details of tax rate computation were confusing and tedious.

Another drawback of this initial legislation was its rigidity. The mandatory class assessment percentages conformed well to the status quo in the cities, but would have forced business property tax increases in smaller communities that were leading the movement to revaluation and equalization.

Current Classification Rules in Massachusetts: Chapter 797 of 1979

The mandatory classification structure of 1978's Chapter 580 was repealed and replaced by Chapter 797 of 1979. The text of this legislation may be found in Appendix 5-B of Volume II. While the old classification law was never implemented by any community before its repeal, the local options of the present law have been exercised by some towns. Appendix 5-C in Volume II shows that among ninety-seven jurisdictions certified by the state as equalized for Fiscal Year 1981 (the initial implementation year for this law), as of March 13, 1981, fourteen adopted differential tax rates and three made use of elective residential exemptions. Of nine special districts certified, three exercised classification options.

Chapter 797 classification has local jurisdictions assess all properties at 100 percent of market value and then they may apply different tax rates to each class. The different rates are accomplished by the way the tax levy is apportioned among the classes. The difference in rates is a local option decision within a range of possibilities defined by set limits and an "anti-abuse clause." The allowed options range from favorable treatment of residential and still greater benefits for open space through the single tax rate standard sanctioned before classification, to favorable treatment for business property. The anti-abuse clause forbids a jurisdiction from taxing any property or class at more than half again the level they would have paid under the pre-classification standards of strict 100 percent valuation with a single tax rate. Another local option is the use and size of a residential parcel exemption, a set amount to be deducted from the full market value assessment of each owner-occupied residential parcel. This

exemption may equal up to ten percent of the average assessed (market) value for all residential properties.[4] The effect of this exemption would be to reallocate taxes within the Residential Class (favoring lower-valued, owner-occupied residences) without changing the tax bills of nonresidential properties. The classes established for Chapter 797 classification are listed earlier in this chapter in the section Classification Comparisons. For practical purposes the Commercial, Industrial, and Personal classes can be regarded as comprising one class since they are taxed at the same rate.

Here is the way the present classification system works, in three steps: First, determine the "full and fair cash valuation" tax base and note what proportions of that base are found in Class One Residential properties (We will call this percent of the tax base "P1") and Class Two Open Space properties ("P2"). The remaining portion of the tax base ("P3") is Commercial, Industrial, and Personal; we can treat this last portion as one aggregate since these properties will all be taxed at the same rate. The law states that these tax base and percent composition figures must be those "determined by the (State) Commissioner of Revenue."

Second, determine the "minimum residential factor". The residential factor is a crucial parameter. The lower the residential factor, the greater the benefit to residential and open space property taxpayers.[5] We will be multiplying the residential and open space percent of the tax base (P1 plus P2) by the residential factor (which we will call "R") to arrive at open space and residential's share of the overall levy. Under no circumstance can "R" be lower than 65 percent. If 65 percent is allowed and used as the residential factor, then

residential and open space taxes will be lowered by 35 percent. However, the advantage granted to residential and open space taxpayers may not be so great that other property types will be billed for more than one and a half times the taxes they would have paid without classification. This last condition means that in some circumstances the minimum residential factor must be greater than 65 percent. Solving for this condition (see the following section of this chapter) we find that a minimum residential factor of 65 percent is allowed if residential and open space property constitute less than 59 percent of the full market value tax base ($P1 + P2 \leq .59$). This holds true for Boston. For communities with tax bases more heavily weighted with residential and open space property the minimum residential factor will be $R_{min} = 1.5 - (.5/(P1 + P2))$. The greater the residential and open space portions of the tax base (higher P1 and P2) the higher is the minimum residential factor.

Open space may (at local option) be granted a further tax reduction of as much as 25 percent. Just as the Mayor or Selectmen may adopt a residential factor (R) that will reduce the residential and open space tax levies, they may also adopt an open space factor (S) that will further lower the Class Two levy. The additional open space tax reduction will be borne by the residential class. The law states that the open space factor may not be lower than 75 percent. If an open space factor of 100 percent is chosen, then residential and open space properties will receive the same degree of benefit at the expense of commercial, industrial and personal property. Any further reduction in open space taxes will have to be paid by residential taxpayers, so this choice does not influence the minimum residential factor determination.

Where a minimum residential factor of 65 percent is allowed, a community may reduce open space taxes to less than half of what they would have been without classification (75 percent times 65 percent = 48.75 percent). The 35 percent tax reduction for residential property would then be somewhat offset by tax burden shifting from open space.

Third, and last, the Mayor or Selectmen decide upon the residential factor, open space factor, and residential exemption to be employed. The two factor decisions and the residential exemption are subject to annual change.[6] A residential exemption (we will call it "E" in the shorthand below) will not change the residential levy, but it will affect the residential tax rate.

Here are the classification tax rates where

L = the aggregate property tax levy

B = the full market value tax base

and

n = the number of owner-occupied residential parcels.

$$\text{Residential rate} = \frac{R \cdot L \cdot (P1 + (1-S) \cdot P2)}{B \cdot P1 - n \cdot E}$$

$$\text{Open space rate} = \frac{R \cdot S \cdot L}{B}$$

$$\text{Commercial/Industrial/Personal rates} = \frac{1 - (R \cdot (P1 + P2)) \cdot L}{B \cdot (1-P1-P2)}$$

The effective tax rates (taxes as a percent of market value) will be the same as these nominal (assessed value) rates for Open Space and Commercial/Industrial/Personal properties because they are assessed at full market value. For Residential realty the effective rate will vary from parcel to parcel because the exemption will help low value,

owner-occupied properties more than high value ones at the expense of absentee-owned and vacant residential parcels. A jurisdiction may avoid classification entirely by choosing residential and open space factors of one and a residential exemption of zero.

Like its predecessor, Chapter 797 classification requires equalization as a condition for implementation. Classification may not be used until the Commissioner of Revenue certifies that the assessor has accurately determined full market value assessments for all properties. The Commissioner must also certify the assessors' qualifications and competence. Public hearings must be held by city or town officials before they select the levy factors and residential exemption.[7]

An additional feature of the Chapter 797 classification law was the establishment of standards for the granting of abatement relief by the State Appellate Tax Board. Once a community is equalized under classification, the standards for fair and legal taxation will be the class tax rates. Until then the standard would be the average assessment/value ratio for all taxable property as determined by the State equalization study for each jurisdiction. Before this law took effect the standard was the average ratio for the lowest class, a principle confirmed by the famous "Tregor decision". Disproportionment awards against any community that has not revalued by the end of Fiscal Year 1983 are again to be figured by the more costly lowest class principle.

A Summary of Classification in Shorthand

We will need these symbols:

L = the aggregate property tax Levy for all classes combined

B = the full market value tax Base for all classes combined

P1 = the Portion (a decimal percent) of "B" found in Class 1 Residential realty

P2 = the Portion of "B" found in Class 2 Open Space realty

R = the Residential factor to be used

R_{min} = the minimum Residential factor allowed. R_{min} will be the greater of .65 or as prescribed by the "anti-abuse clause".

S = the Open Space factor which may not be less than .75

E = the residential Exemption to be deducted from each owner-occupied residential parcel's market value assessment This exemption may not exceed ten percent of the average market value assessment of all residential properties.

n = the number of owner-occupied residential parcels.

All of the above symbols refer to a particular city or town. It follows from these definitions that the portion of full tax base "B" found in Classes 3 (commercial), 4 (industrial) and personal property combined is 1-(P1 +P2). We can treat this as one aggregate since these properties all share the same tax rate, and we will refer to this entire portion of the tax base as Class Three.

The average effective tax rate for the jurisdiction (t) will of course be the aggregate levy divided by the full base: [8]

$$t = \frac{L}{B}$$

The component levies (C) borne by each of the three classes are:

$$C1 = L \cdot R \cdot (P1 + (1-S) \cdot P2)$$

$$C2 = L \cdot R \cdot S \cdot P2$$

$$C3 = L \cdot (1-(R \cdot (P1 + P2)))$$

and the effective tax rates are:

$$t_1 = \frac{C1}{B \cdot P1}$$

(This is the average market value tax rate for the residential class.)

$$t_2 = \frac{C2}{B \cdot P2}$$

$$t_3 = \frac{C3}{B(1-(P1 + P2))}$$

The nominal (assessed value) rates for Classes 2 and 3 will be the same as the effective rates, but any residential parcel exemption will lower the Class 1 nominal base and require a nominal tax rate of $C1/B \cdot P1-n \cdot E)$.

The "anti-abuse clause" states that no class shall bear a portion of the total levy greater than 150 percent of its portion of the full base. Assuming that residential and open space are the classes to be favored, this means that

$$1-R \cdot (P1 + P2) \leq 1.5(1-(P1+P2))$$

so

$$R_{min} \cdot (P1 + P2) = 1.5(P1 + P2) - 1.5 + 1$$

or

$$R_{min} = 1.5 - (.5/(P1 + P2))$$

If there is no open space in the jurisdiction P2 = 0 and

$$R_{min} = 1.5 - .5/P1$$

This is subject to the limitations that R_{min} shall not be lower than 65 percent or higher than 100 percent. The last formula shows that a minimum residential factor of 65 percent is permitted by the anti-abuse clause where open space and residential market values comprise no more than 59 percent of the full tax base ($P1 + P2 \leq .59$). If the residential and open space portions of the full tax base total more than .59 then a residential factor of 65 percent would violate the anti-abuse clause for Class Three properties.

The most significant summary measure of the potential effects of Chapter 797 classification might be a comparison of intra-jurisdictional

effective tax rates. Without classification strict equality of effective tax rates across all properties and property classes would be required; all class effective tax rates would stand at a 1:1 ratio to one another. Classification now allows local option choice of relative rates within limits set by the anti-abuse clause and restrictions on R_{min} and S. Since classification will generally be used to lower residential tax rates, we present the lowest allowed ratios of effective (before the application of any exemption) residential rates to commercial, industrial and personal rates (t_1/t_3) in the table below. For simplicity, these figures are based on the assumption of no open space property. Identical results would hold for communities having open space where S = 1.0 and P1 is understood to mean P1 + P2.

Lowest Allowed Ratios of Residential to Commercial-Industrial-Personal Effective Tax Rates (t_1/t_3)

Residential Portion of Tax Base (P1)	Minimum Residential Factor (R_{min})	Minimum Allowed Rate Ratio (t_1/t_3)
.01	.65	.648
.40	.65	.527
.59	.65	.433
.80	.875	.583
.99	.995	.666

Permitted residential rates are relatively lowest where the tax base is 59 percent residential. In this case the residential rate may be lowered by 35 percent and the commercial/industrial/personal rate is thereby raised by 50 percent from the jurisdiction-wide average. Where the residential tax base is proportionately smaller, the residential rate may be lowered by 35 percent but this results in less than a 50 percent increase for Class Three. Where the residential tax base

constitutes more than 59 percent of the overall base, the residential rate cannot be lowered by as much as 35 percent without violating the restriction that other rates may not be raised by over 50 percent.

From our formulae above, we see that in the general case where there is no open space property in a jurisdiction, the ratio of Class One to Class Three effective tax rates is:

$$\frac{t_1}{t_3} = \frac{(R \cdot L \cdot P1)/(B \cdot P1)}{((1-R \cdot P1) \cdot L)/(B(1-P1))} = \frac{R \cdot (1-P1)}{1-R \cdot P1}$$

Statewide Implications of Classification in 1978[9]

As we have seen in the previous chapter, property tax assessments in most Massachusetts cities and towns still deviated substantially from prevailing legal standards in 1978. Compliance with those standards of equal ad valorem taxation for all properties within a jurisdiction would have shifted a significant amount of the property tax burden then billed to business property onto residential property.[10] In November 1978, the voters approved by a two to one margin an amendment to the State Constitution allowing the differential taxation of property by class within individual jurisdictions. A similar measure had been rejected in 1970 by an equally large majority; but rising levies, the "taxpayer revolt", and the enforcement of equalization had all intervened between these two ballots to make classification a dollars and cents issue.

Before considering the size of tax shifts that equalization portended either with or without classification, we should note that many more dollars of property values may have been at stake. While property taxes should depend on property values, taxes can influence

values too. The calculation of our equalization estimates incorporates an allowance for the mutual adjustment of property taxes and values through tax capitalization. The possible consequences of tax capitalization--the effect that property taxes have on property values--had been a topic of concern and speculation as Massachusetts communities approached equalization deadlines. As we observed in the preceding chapter, four scholarly papers[11] published between the 1974 Sudbury decision and the 1978 classification vote described and anticipated tax capitalization in estimating the impact of equalization in Boston and the State. The authors' concern was as much practical as scholarly, since tax bill changes in Boston and elsewhere promised to be large, and property value impacts could be several times greater than annual tax changes. This situation would be of great financial significance to taxpayers since a loss of household or business income to higher taxes would be accompanied by a much greater loss of wealth through property value decline, while the enjoyment of a tax cut would be magnified to a still greater gain as property values rose for houses made more affordable and for business property made more profitable. Assessors and researchers are also confronted by tax capitalization in their attempts to administer or predict the results of equalization. Property taxes are to be based on property market values. But where new assessed values result in substantially changed taxes, property values might change in turn, making the equalization obsolete.

As we explain in Chapter 3 of the second volume of this report, our present estimates are calculated at the "equilibrium" level where property taxes and property values are in balance after full adjustment. Both the reasoning and the mathematics of our approach are detailed in

that chapter. We do not believe that the tax capitalization process we have modeled is precisely and universally correct, but it has the virtue of simplicity and we feel that it is reasonable as well as describable. Our attention to this process is encouraged by the facts that evidence indicating the occurrence of tax capitalization in Massachusetts has been documented,[12] that the effect of tax capitalization in moderating tax changes is consistent with any conservative tendency assessors may have to avoid abrupt tax shifts, and that we are interested in the long-range and stable consequences of equalization.

The following tables illustrate what the electorate was voting for and what it was voting against in 1978. While the "shelf bill" (Chapter 580 of 1978) that became effective with the amendment's approval was never implemented, the ranges of option allowed under present legislation usually encompass or approach the average results for the three alternatives of status quo, "100%", and original classification, as presented in the tables.

Property taxes were an especially significant part of homeowner and renter budgets in Massachusetts. See Table 5-1. If taxes had been equalized instantly on election day (impossible, of course, but an interesting thought-experiment) and balanced in equilibrium with the new values that could result through tax capitalization, residential properties throughout the State could have suffered a net increase of $179 million (a 9.8 percent increase in burden) under 100 percent or enjoyed a savings of $145 million (7.9 percent) under classification.

Owners of lower-valued houses would have been special beneficiaries of this $324 million difference. The $5,000 lump sum exemption to have been deducted from the 40 percent assessment of each residential

property would have resulted in a special schedule of relative effective tax reates keyed to property value. See Chart 5-1. The effect is progressive, especially in the $16,700 to $50,000 range.[13] Consequently, small residential properties would continue to enjoy a favored position with respect to large investor-owned apartments. This schedule of graduated rates would become less pronounced over time as values rose to the flatter side of the curve. To the extent that low-income households live in low-value houses, the tax would have a progressive incidence within jurisdictions. Since properties that had experienced little value growth were likely to be over-assessed as well as low value, the "graduated property tax" would have brought especially dramatic relief to many declining urban neighborhoods.[14]

The following three tables summarize some illustrative estimates of how taxes, effective rates, and values might have adjusted in concert if equalization had been instantly accomplished in Fiscal Year 1978, our "current" base year.

Table 5-2 indicates that statewide implementation of classification could have brought about seven and nine percent cuts in the aggregate tax bills for one- and two-family homes, respectively. Three-family homes, which are concentrated in older and larger urban centers, might have gotten a twenty percent reduction. Offsetting these reductions plus a ten percent decline in taxes on apartments are eight and six percent increases for commercial and industrial parcels. Increases are also indicated for residential-commercial mixed-use properties, vacant land, and farm land; but we have little confidence in these estimates due to the weakness of the data base in these areas and the necessity for special assumptions.[15]

Voters' rejection of the "100 percent" alternative may be understood by contrasting the above projections with the expected consequences of absolute equalization across all property classes. Rather than seven and nine percent reductions, one and two-family homeowners might have received eleven and sixteen percent tax increases.[16] Property taxes on three-family homes would have risen by nearly twelve percent from current levels and the tax cut for apartment properties would have been reduced to four percent. The State's commercial and industrial properties would have seen their tax bills decline by eleven and nineteen percent, respectively. The biggest winners would have been the utilities and other owners of taxable "personal property" who would have enjoyed a drop of over forty percent from their pre-equalization tax level.

In Table 5-2 we also find that equalization's impact on individual property types varies across cities and towns. In the larger cities, with populations over 50,000, classification would have brought little change, on average, to single-family homes (a 3 percent tax decline) and commercial and industrial properties (up 3 percent and down 1 percent, respectively). But in small communities having populations less than 10,000, there would have been a noticeable shift onto commercial (up 27 percent) and industrial (up 21 percent) realty as single family home taxes dropped (down 9 percent). Without classification, taxes on single-family homes in the larger cities would have risen by an average $325 (up 24 percent) while commercial and industrial property taxes went down (by 11 and 20 percent, respectively). The direction of change would have been the same in small towns as in the cities, had they revalued without classification, but the degree of change would have

been less. A modest increase for single-family homes of $36 (up 4 percent) would have allowed significant reductions for commercial and industrial properties (down 8 and 13 percent, respectively).

The sub-class of one-family homes in the smaller communities would have been protected from tax shifts by both its size (two-thirds of the tax base compared to two-fifths in the cities) and low overall tax rates (2.3 percent of market value compared to 5.7 percent in the cities). Furthermore, a number of smaller communities had already achieved or approached compliance with the existing rule of uniform "100 percent valuation". Of one hundred three jurisdictions showing average assessment to market value ratios of ninety percent or greater as of 1977, all but five had populations of less than 25,000.[17]

Table 5-3 shows the extent to which effective tax rates were more burdensome in Massachusetts' larger municipalities than they were in smaller communities. This table expresses Fiscal Year 1978 tax bills as a percent of estimated market value. Prevailing tax levels ("current") are contrasted with what they might have been under the equalization alternatives of 100 percent and mandatory classification for the various types of property. It is evident that under 100 percent equalization, annual tax bills for the 250,381 single family homes in the largest cities and towns would have risen to an average 5.2 percent of house values. A typical new homeowner family here would have been confronted with tax bills two-thirds the size of principal and interest payments on their mortgage loan.[18] However, the burden of this tax increase would probably have been shared with the home's seller.

Table 5-4 indicates the effect that shifting taxes might have exerted on property values. If our new homeowners had chosen a house

that was priced at the limit of their allowable housing budget before the tax increase brought about by 100 percent valuation, they would have needed to negotiate a lower price before entering into a purchase contract once the property taxes rose. The result might have been as illustrated in the table, where the seller and not the buyer is pictured as paying for (or benefiting from) all tax increases (or reductions) through changed property values.[19] The owner of a typical three-family home in one of the state's largest communities might have seen his property's value fall from $25,275 to $23,549 as a result of tax increases due to 100 percent valuation or rise to $28,156 after the tax cut that classification would have brought. The annual tax difference of $843 that would have distinguished a savings under 100 percent from an increased expense under classification might have been the difference between a $1,648 rise or a $5,371 fall in the value of a commercial property situated in one of the state's smallest towns.

Although we do not believe that the tax capitalization process occurs precisely as we have modeled it, we do feel that some capitalization does accompany tax changes that have not been fully anticipated and that are regarded as final. Rather than immediate and full capitalization we might see a gradual and partial adjustment. Some of this adjustment could take place in anticipation of tax changes expected. Regardless of the mechanism, the presence of tax capitalization in any form has implications for wealth positions.

We have seen that the mandatory classification rules that were law at the time of the constitutional amendment's passage in 1978 "fit" the state's larger municipalities better than they did the smaller towns. The table below shows how pronounced this contrast was. Here the total

net tax burden shifting that would have occurred among the several types of property in each community is expressed as a percent of total tax levy.

TAX SHIFTING FROM SIMULATED 1978 EQUALIZATION
Percent of Levy

	Boston	Population Group: More than 50,000	25,000-50,000	10,000-25,000	Less than 10,000	Massachusetts
100%	11%	10	8	4	5	8
Ch. 580	5	6	7	7	8	6

The disruption of existing tax patterns would have been reduced by Chapter 580 for the states' overall property tax burden and, on average, within the larger cities and towns that contain most of the state's population. See Table 5-5. The classification advantage would have been greatest for the 22 jurisdictions with 50,000 or more residents, comprising 42 percent of Massachusetts' population. Among the smaller towns, on the other hand, the disruption under classification would have greater. Many of these had already revalued and were close to compliance with 100 percent. The comparative "fit" of Chapter 580 and 100 percent for the largest communities was completely reversed for the 203 towns with 10,000 or fewer residents. This latter group represented only one-eighth of the state's population and one-ninth of total property taxes but contained well over half of the municipalities. These are the towns that were leading the move to legal compliance and they would have been the first to implement mandatory classification.

Statewide Reality of Classification in 1983

The earliest effects of Chapter 580 would have been to magnify, rather than moderate, the trauma of equalization. This outcome was

forestalled by the passage of local option "adjustable" classification rules in 1979 through Chapter 797.

The tax cut measure "Proposition 2½", approved in a 1980 referendum, further changed the context of the revaluation drama by lowering the overall size of property tax levies. Since "2½" demanded that levies be reduced by 15 percent annually until an average effective tax rate of 2½ percent was reached, the reality of revaluation was most changed in the larger, higher taxing communities. An individual who would have faced a 15 percent tax increase if equalization had been accomplished in Fiscal Year 1981 might have suffered only the loss of a tax cut under revaluation the following year.

The flexibility of options available under Chapter 797 classification would have allowed the tax cuts mandated by 2½ to be spread across a broad spectrum of each local tax base. Judicious use of classification in conjunction with levy reductions could have minimized the number of "losers" in the revaluation game and instead balanced "winners" with hold-harmless cases. In fact, however, this has not happened. Most communities have not exercised the classification option, and residential taxes have risen despite Proposition "2½".

Classification's popular victory in 1978 was stronger than 2½'s two years later, but while the tax cut measure has survived unscathed except for technical amendment, classification has been largely ignored by local officials.

MASSACHUSETTS CLASSIFICATION IMPLEMENTATION[20]

Fiscal Year	Number of Cities and Towns		
	Equalized	Classified	Percent
1981	97	14	14
1982*	197	43	22
1983*	221	54	24

* Partial data as of June 15, 1983.

Continuing popular support for classification was voiced in the November 1982 elections, when referenda in the cities of Lowell, Springfield, and Worcester calling for the use of the minimum residential factor passed by margins of five to one.

A survey conducted by Lawrence Segel[21] found that residential taxes have actually increased despite Proposition 2½ and the availability of classification. Of 211 cities and towns certified by the state as equalized by January 1, 1983, only 46 exercised their classification option and 165 taxed all property equally. The median increase in the share of tax levy borne by residential property was 2.32 percent. In half (105) of these places the residential tax share increase was less than five percent despite decisions not to use multiple rates. In 46 communities the relative residential burden rose by more than five percent and in 14 cases, the proportional tax share actually declined without classification because residential property was formerly overassessed. Of the cities and towns that used classification, 26 maintained the status quo tax distribution, six still experienced shifts onto the residential class exceeding five percent, four were prevented from maintaining status quo distributions due to constraints on the minimum residential factor, and ten decreased the residential tax share. "Revaluation, classification, and 2½ have caused most typical

residential tax bills to go up $16 to $66, commercial tax bills to go down $39 to $925, and industrial bills to go down $109 to $2,563."[22] Personalty taxes (largely utility companies) went down in every instance.

The Significance of Classification for Boston in 1978

The initial classification law fit Boston's status quo fairly well. The degree of tax shifting among property types that would have attended compliance with Chapter 580 would have been less than in almost all other communities, including the other cities. Relative tax share changes due to equalization without classification, on the other hand, would have been exceptionally severe in Boston. The City's staggering property tax levy would have magnified these proportional shifts still further into very large dollar gains and losses.

Table 5-6 indicates the tax bill, effective tax rate, and property value changes that might have followed from equalization in Boston, either with or without classification, in 1978. Implementation of Chapter 580 would not have prevented the average single-family home from suffering a slight $87 tax increase (6 percent), but this would have forestalled a $728 rise (53 percent) under 100 percent valuation. A dramatic and permanent tax increase could have had significant repercussions on property values. The additional tax would then have been inescapable for present owners who could either stay and pay or sell and suffer a loss of personal wealth from previous levels. With higher taxes and lower house prices after 100 percent equalization, a new home buyer might have had to balance the household housing budget to allow for nearly equal tax and mortgage payments.

Two- and three-family homes, comprising 89,161 dwelling units, would have paid more than previously under 100 percent or enjoyed a tax cut with classification. The difference between estimated equalized tax bills for two-family homes of $637 amounts to 44 percent of their actual Fiscal Year 1978 average tax. Classification's $376 tax reduction (25 percent) for the average three-family home contrasts with a $248 rise (16 percent) if taxes had been equalized under the former rules of 100 percent. Relatively over-taxed apartment properties would have enjoyed tax relief under enforcement of either set of rules, but the average reduction would have been more modest (6 percent) with 100 percent than with classification (19 percent).

Average commercial and industrial taxes would also have declined under either equalization method. The reduction would have been minor with classification (2 percent each) and substantial with absolute tax equalization (9 percent and 14 percent, respectively), but we will see that these averages mask great diversity. Personal property taxpayers, primarily the major utilities, had a major financial interest in the outcome of the classification amendment vote. While the utilities would have been "held harmless" from tax increases by the special excise provision of Chapter 580, they could have reaped the larger part of a $25.5 million tax cut (41 percent) for personal property if Boston had equalized without differential tax treatment. Since not all taxable personalty is owned by utilities, this sector would have borne a larger part of the levy under classification than before.

Prospective average tax shifts appeared rather small under the rules of Chapter 580 and quite large under 100 percent. But looking within these averages, we find existing assessing dispersion so great as

to match the diversity of average results between these two rules with equal variation within property classes under either law.

Dispersion and Diversity among Boston Commercial Properties

Revaluation and the classification issue were often perceived as a struggle between united homeowners and monolithic commercial real estate interests. In fact, however, differences of existing tax treatment within the commercial class dwarfed the gap between the average house and the average office building. Although all homewoners (and renters) would have been better off with classification and all commercial realty owners would have been better off with 100 percent, some commercial properties would have received tax cuts under either equalization formula and others would have faced increases. The double standard that was established by tax incentives for development was aggravated by poor economic conditions for less marketable commercial space in the mid-1970s. Major tax increases were in store for new commercial property and major decreases were due older business realty. Some of this latter was accomplished retroactively by the Tregor tax abatement cases, at a cost of millions to the City.

Table 5-7 shows how disparate old and new office building taxes were in 1978. Per unit taxes on new development were less than half again the taxes on older commercial stock, while property values were nearly five times as great. The tax bills of older business real estate would have dropped 20 to 25 percent if Boston had equalized its assessments without classification. Even under Chapter 580 these bills would have fallen significantly, about a range of 13 to 22 percent. The typical modern office tower, on the other hand, might have seen a 74 percent rise due to equalization even if the classification amendment's

defeat had averted an 87 percent rise. Again, all of these estimates are for averages, and there were further disparities within even these averages.

The economic implications of this potential intra-class shift were enormous. Rather than paying over five times the total taxes billed to the new commercial generation, the group of older commercial properties would receive an aggregate tax bill only two and a quarter times greater after the enforcement of either 100 percent or mandatory classification. Even if business interests and supporters were successful in defeating classification, the modern office towers that had changed Boston's skyline and economy might have experienced a 31 percent rise in combined operating and tax expenses.[23] Balancing this would have been a nearly ten percent decline in combined costs for hard-pressed older properties. Such an impact on expenses and therefore on profits might well have been translated into property value changes as investors revised their expectations.[24] Values might have changed by about a quarter; up for more vintage realty getting tax cuts and down for new development shouldering tax increases.[25]

Dispersion and Diversity Among Boston Homes

The extensive data that allowed us a detailed picture of assessing and value patterns among Boston's one-, two-, and three-family homes provide us with a view of diverse tax consequences, had Boston equalized at the time of the classification vote. These small residential properties not only deviated differentially from the existing standard of full market value assessment, but also varied considerably in value. The proportional effect of Chapter 580's mandatory $5,000 residential

parcel exemption would be greatest and of most benefit to lower valued homes of any previous tax standing.

Table 5-8 shows that tax changes for one-, two-, and three-family homes would have differed within as well as across property types. Under 100 percent valuation, average tax changes for single family homes within a given ward might have ranged from a six percent decrease to more than a tripling. With classification the range is still great, going from a 67 percent cut to an increase to more than double. The advantage of classification to homeowners is till clear, but even the Chapter 580 "shelf bill" could probably not have prevented the aggregate single-family home tax from rising somewhat. In seven of the 22 wards, containing 11,254 homes (38 percent), average taxes would have gone up by over 20 percent if classification had been implemented on the day it was approved. But even if average (mean) taxes were to rise, typical (median) taxes might still have fallen. Just over half of Boston's single-family homes were located in wards that have tax cuts indicated.

The effect of 100 percent would have been to raise taxes on the most underassessed homes the greatest. The effects of Chapter 580 would not have been as simple due to the progressive action of the fixed residential exemption. Single-family homes in Wards 8, 10, and 11 all had assessment to value ratios of between 20 percent and 20.5 percent, but their tax reductions under classification would have ranged from 43 percent through 34 percent to 24 percent. The steepest decline would have been in Ward 8, which had the highest ratio but the lowest average value ($15,587) of the three.[26] Condominiums, not included in Table 5-8, were assessed at an average 19.7 percent of market value--close to the average level in Wards 8, 10, and 11. Average classification taxes

would have represented an increase from $3,067 to $3,361 (8.9 percent) for condominiums, which had an average market value of $62,111. The 33.1 percent tax increase to $4,109 that 100 percent valuation would have brought to condominiums would have been matched by similar proportional increases in the three wards.

Although the variety of projected average tax change among small residential properties of Boston's 22 wards is great, much greater dispersion and diversity could be seen among individual parcels. The average experience of each ward would have been reflected by individual experiences in every ward.

"Equilibrium" Estimates are Conservative

While the tax changes estimated and reported in Table 5-8 and elsewhere in this paper are often substantial, they are nonetheless based on a conservative method. Adjustment for tax capitalization, as we have done in our equalization simulations, moderates the degree of tax change. Where taxes would rise, values are seen to fall so that taxes should not rise as much. Where taxes would fall, values are seen to rise so that taxes should not fall as far.

In Table 5-9 we see that the 57 percent increase in average single family home taxes that 100 percent valuation might have called for at equilibrium values would have been a 91 percent increase based on the "initial impact" values that were estimated to prevail before the hypothetical tax change. Final average tax bills would average 18 percent lower at equilibrium than they were at initial impact. For one-family homeowners in the several wards, the equilibrium taxes indicated are generally 10 to 20 percent lower than the corresponding initial impact taxes. The mathematics of our model dictate that in

isolated instances for Boston small residential properties and 100 percent valuation, the tax change estimated at equilibrium would be only 57 percent of the tax change indicated for initial impact. In isolated instances for investment properties, the equilibrium tax change would be 40 percent less than the estimated initial impact change.[27] We do not pretend that our simple tax capitalization model is "accurate", but we see the possibility that astute anticipation or prompt adjustment by the assessor could moderate large tax shifts and improve equity and efficiency.[28]

Comparing the Old Classification Law and the New for Boston

Full use of Chapter 797 classification, which replaced the Chapter 580 formula, would have brought results similar to those we have described for Boston under the older rule. Residential property would have borne exactly the same aggregate tax burden, and exercise of the residential exemption option would have maintained the progressive effect of a "graduated property tax" within the residential class. Commercial and industrial realty would have received higher bills with the current legislation and personal property taxes would have been lower. The utility "hold harmless" provision of Chapter 580 would have protected most personalty from tax increases above the prevailing level; but the proportionality schedule, which would have assessed personality at full value and all realty at 55 percent or lower, would have denied personal property any equalizing tax cuts. The present classification law still favors residences, but the "Class 3" levy is distributed strictly ad valorem among commercial, industrial, and personal property. The lower taxes on personal property would have been matched dollar for dollar with higher bills to commercial and industrial real estate.

Residential property, which represented 48.3 percent of the prevailing tax basae in 1978, would have paid 31.4 percent of total property taxes if equalization had been instantly achieved on the basis of those pre-qualization property values. Commercial property, 31.8 percent of the tax base, would have borne 38.1 percent of the burden under Chapter 580 and 44.4 percent with Chapter 797. That eight percent of the tax base representing taxable personalty would have been responsible for 16.5 percent of the levy with the old formula or only 11.2 percent with the new. These results are summarized in the following table. The principal differences are that commercial real estate pays one-sixth more under present legislation and personal property pays a third less.

"INITIAL IMPACT" TAX LEVY SHARES IN BOSTON: 1978

Classification by Chapter 580 and the Current Chapter 797 Formula

	Residential	Commercial	Industrial	Personal	Land
Ch. 580	31.4%	38.1	9.5	16.5	4.5
Ch. 797	31.4	44.4	9.9	11.2	3.1

Note: Vacant land was assumed to be taxed at the residential rate. Mixed use residential/commercial property was split evenly between the residential and commercial classes.

The Boston Reality of Classification and Equalization in 1983

Boston finally accomplished the revaluation of its tax base and equalization under classification in the eleventh hour of Fiscal Year 1983, nearly nine years after the Sudbury ruling. A long period of economic change, institutional adjustment, and fiscal transformation intervened during this period. Boston's initial response to the Sudbury order had been to submit an unrealistic plan outlining an intention to

use income capitalization methods to value all properties, including non-income-producing, single-family homes. In 1978, however, the City established the Office of Property Equalization (OPE), and in June of 1979 the state approved OPE's master plan for revaluation.

For Fiscal Year 1981, Assessing Commissioner Raymond Torto instituted a program of gradual and partial adjustment of under-assessed properties to bring them closer to class average levels. "We don't want to bring these guys up so fast that they get the bends," said Torto. OPE compiled statistics on 137 assessment districts to identify areas most in need of upward adjustment. Approximately 74 percent of single-family homes, 35 percent of two-family residences, and 21 percent of three-families were reassessed to higher levels. Commercial and industrial properties were also affected. The policy was to increase no property more than forty percent of the way to class average levels and to maintain relative class levy shares.

Starting in Fiscal Year 1982, "Proposition 2½" mandated that Boston's property tax levy be reduced by fifteen percent annually until an average effective tax rate of 2½ percent was reached. Starting from $518.7 million in FY1981, property taxes were reduced to $374.6 million in FY1983, the year of equalization. This was fifteen percent below the 1978 levy of $441.3 million that we reallocated in the equalization simulations described in this report.

The levy shrank and the tax base had grown. The certified Fiscal 1983 tax base was $12.2 billion, compared to our estimate of $5.9 billion in 1978. The average effective tax rate fell from 7.5 percent to 3.1 percent over that period.

Boston used the classification options of Chapter 797 to the fullest extent allowed. The minimum residential factor of 65 percent maintained a low tax share for the residential class and 64,023 residential exemptions of $6,150 each established a progressive tax incidence for owner-occupants. Here are the actual tax levy shares billed during our 1978 study period, for the year preceding revaluation, and for 1983's equalized taxes:

BOSTON ACTUAL PROPERTY TAX LEVY SHARES

	FY1978	FY1982	FY1983
Residential	35.8%	37.5	30.5
Commercial	38.0	37.5	43.5
Industrial	9.7	11.0	7.7
Land	2.3	*	*
Personal	14.2	14.3	18.2

The 1982 and 1983 figures were reported by Joseph Slavet and Raymond Torto in Boston's Fiscal Future: Prognosis and Policy Options for 1984 to 1986, University of Massachusetts, September 1983.

* Vacant land taxes were apportioned between the residential and commercial classes, as prescribed by Chapter 797.

The outcome is similar to that forecast. The major difference is the higher level of utility taxes, some of which are under appeal.

Conclusion

The conclusion of the story of Massachusetts property tax rules and its fiscal role is to be continued into the future. Statewide levies have been reduced from $3 billion in Fiscal Year 1978 and $3.3 billion in 1981 to $2.9 billion in 1983, but local communities are still searching for reliable replacement revenues to maintain services and public infrastructure.

Most Massachusetts cities and towns have now equalized property tax assessments and bills, but classification--once thought to be a

necessary, if insufficient, condition for equalization--has not been widely employed. Taxes billed to the voters who overwhelmingly approved classification have, on average, gone up. Proposition 2½'s tax cuts have gone mainly to business realty and utilities. The possible effects of public meeting requirements on the use of classification have not yet been seen. The issue of utility taxes is under appeal from both sides. In Boston, the gas and electric companies are suing for lower assessments and tax bills. A contest of statewide significance is being waged between the town of Watertown and Boston Edison Company at the Appellate Tax Board and before the Supreme Judicial Court. Watertown contends that the method used to value major utility personalty understates true value, and that these assessments and taxes should be increased. If Watertown is successful, the tax reductions that major utilities have received in the last few years could be reduced or reversed.

Profound structural changes may also be occurring in local budget processes and property tax administration. The "municipal equation" has been reversed by Proposition 2½. Rather than totaling desired expenditures and then adjusting the property tax levy to provide sufficient revenue, local government now begins the budget process with strictly limited total revenues, and expenditures are then figured to fit within this constraint. The question of whether this tends to reduce public participation in local budget preparation has been raised, but no answer has yet been agreed upon.[29] The quality of property tax administration in Massachusetts may have been greatly improved by recent events. Stricter state review, increased public attention, and the necessity of keeping assessed values up to date in order to avoid

revenue loss through "2½" have demanded greater professionalism in tax base management.[30]

Massachusetts continues to be a living laboratory for political, fiscal, legal, and administrative change in the use of property taxation to support local government.

Footnotes

[1] A further argument against 100 percent valuation was that since special clause abatements are established as a set amount to be subtracted from assessed value, the change from fractional to full value assessment would undermine the effect of these relief measures for those deemed especially needy.

[2] Taxable personalty in Massachusetts does not include the equipment of manufacturing industries.

[3] In the City of Boston for FY1978, gas and electric property accounted for nearly two-thirds of assessed personalty and paid 9.3 percent of the property tax levy.

[4] Before it was amended by Chapter 369 of the Acts of 1982, the exemption was to be granted to all residential parcels, including vacant residential lots.

[5] Prior to its amendment by Chapter 369 of the Acts of 1982, classification's residential factor was first applied to the residential class only. Open space was dealt with in a later step, and it was not guaranteed the benefits of the residential factor. Both then and now, open space taxes could be reduced below the residential factor level. This further reduction was originally at the expense of Class 3, but it is now borne by Class 2 residential taxpayers.

[6] Before amendment by Chapter 419 of the Acts of 1981, the factor decisions held for two years and only the residential exemption could be chosen annually.

[7] The public hearing requirement was one of the reforms made by Chapter 369 of the Acts of 1982.

[8] It is this average effective tax rate that is limited by "Proposition 2½", as described in Chapter 6 of this report. This law constraining the total property tax levy does not impede the implementation of classification, nor does it prohibit taxing any one class at more than 2½ percent of market value.

[9] Some parts of this section originally were published in "Tax Relief and Reform in Massachusetts," J. Avault, A. Ganz, and D. Holland; National Tax Journal, June 1979.

[10] Here, and in the rest of this paper, our discussion of the effects of 100 percent and classification runs in terms of tax bill change, not ultimate incidence. Therefore, when we describe classification as forestalling a shift of a given amount of property tax burden from commercial and industrial property to residential property, we are literally correct, but not fully informative.

Property taxes on industrial and commercial properties are a cost of doing business. If these costs were fully shifted to consumers, and if all consumers lived in Massachusetts or Boston (or whatever other jurisdiction we were concerned with) then under any scheme of classification that "favored" residential property vis-a-vis industrial and commercial property, the lower property tax that the occupants of residential property would enjoy would be offset by the higher price of goods and services they consumed. But property taxes on business are not all shifted, and some of the tax that is shifted is exported, i.e., falls on consumers who live outside the particular jurisdiction under analysis.

To the extent that the property tax on industrial and commercial properties is shifted to consumers within the jurisdiction under analysis, our impact measure overstats the degree of tax burden shifting onto residents that is forestalled by classification.

A simple numerical example will illustrate the point: Assume Total Property Tax is now 1,000. Business and residential property sectors should each "pay" 500, but business (relatively over-assessed) "pays" 750, while residences (relatively under-assessed) "pay" 250. But eighty percent of the tax on business is shifted to consumers, and half of what's shifted is exported outside the city. Occupants of residences within the city then bear 250 of tax directly and 300 indirectly (i.e., that part of the tax on business that is shifted but not exported). Under 100 percent both sectors would be liable for 500 of tax directly, and consumers would bear an additional 200 shifted by business.

To summarize: With all properties assessed at full value, the "direct" property tax burden (our impact measure) for residences would double--from 250 to 500. But the sum of the direct and indirect property tax liability on the occupants of these residences would not increase as much--up from 550 to 700.

[11] See footnotes 15 and 16 of Chapter 4.

[12] See footnote 18 of Chapter 4.

[13] Any home worth less than $16,700 would be affected by the provision that the exemption may not lower an assessment to less than ten percent of market value.

[14] Examination of the data analyzed in Chapter 4 to demonstrate "assessment lag" shows average prices for single-family houses to be twice as high in the fastest growing neighborhood of Boston as in the slowest growing area for the period 1970-1975.

[15] Massachusetts law makes special provisions for the taxation of forest land (not to be assessed at more than ten dollars per acre: MGL Ch. 61), agricultural or horticultural land (use value assessment: MGL Ch. 61A), and recreational land (valuation not to exceed twenty five percent of fair cash value: MGL Ch. 61B).

16 The apparent inconsistency in the projection that two-family homes would have received a greater tax reduction under classification but a greater increase with 100 percent, compared to single-family homes, is due partly to the greater proportional assessment reduction that the $5,000 exemption provides for the less expensive two-family homes. In general, the sum of results across individual communities will differ from the result for the sum of communities due to the uneven distribution and varying "current" tax treatments of property types across jurisdictions of different overall tax levels and different tax base compositions. Our equalization simulations were performed for each individual jurisdiction and the results were then summed.

17 Torto, op.cit., Table IV-2.

18 The national average for mortgage rates and terms on existing homes in 1978 was 9.7 percent interest amortized over 28 years with a loan to value ratio of 75.3 percent. (Statistical Abstract of the United States 1981; Tables 876 and 1398). The purchaser would therefore pay 7.83 percent of the purchase price (10.4 percent of the loan amount) to the lender annually over the 28 year term.

19 Table 5-4 was calculated under the assumptions of absolutely rigid housing budgets and an opportunity cost of capital for the down payment amount equal to the annual mortgage constant. That is, the entire tax change for a home is fully capitalized at the 10.4 percent mortgage constant rate. We treat all real properties other than one-, two-, and three-family homes as investments requiring a twelve percent rate of return on the purchase price. The value of personal property is assumed to be unaffected by taxes. Admittedly, the severity of these assumptions of complete and absolute capitalization may tend to overstate the extent to which capitalization of tax changes would have occurred. We have chosen this course because of its simplicity of execustion and interpretation. Please see Chapter 3 of Volume II for a more thorough treatment of this topic.

20 Massachusetts Taxpayers Foundation.

21 Lawrence D. Segel, Property Tax Classification in Massachusetts, Master's thesis, Department of Urban Studies and Planning, MIT, 1983.

22 Segel, op.cit.

23 See Table 4-9.

24 The idea that anticipatory tax capitalization was already exerting upward pressure on old commercial values is consistent with the observation that many older, heavily-taxed properties had been selling for prices that implied very low rates of return on investment.

[25] Of course, this outcome assumes "all other things being equal". In fact, all other things were not equal, and economic conditions were improving the outlook for office buildings in general. The high vacancy rates that followed the opening of over five million net square feet of new office space in 1975 were declining as that space was absorbed by Boston's gorwing "office industries". Vacancies were headed down and rents and values were on their way up.

[26] Table 4-5 lists average values, assessments, ratios, and property counts.

[27] In Chapter 3 of Volume II, we domonstrate that our assumptions imply that for a constant effective tax rate situation, the tax change to equilibrium equals the tax change to initial impact divided by 1+ (e/c) where "e" equals the effective tax rate and "c" equals the capitalization rate. We estimated an "equilibrium tax base" effective rate of 7.9 percent for Boston absolute equalization, and we assumed a 10.4 percent capitalization rate for homeowners. The ratio of equilibrium to initial impact tax changes would therefore be $\frac{1}{1 + (.079/.104)} = .57$

[28] See Bloom, Ladd, Yinger, op.cit. for a discussion of how this might be accomplished.

[29] See "Public Participation: Down or 'Normal'?" in Impact 2½, Number 53; July 1, 1983.

30 Torto, Raymond; Politics versus Professionalism in Property Tax Administration: The Massachusetts Experience, Lincoln Land Institute, 1983.

Table 5-1

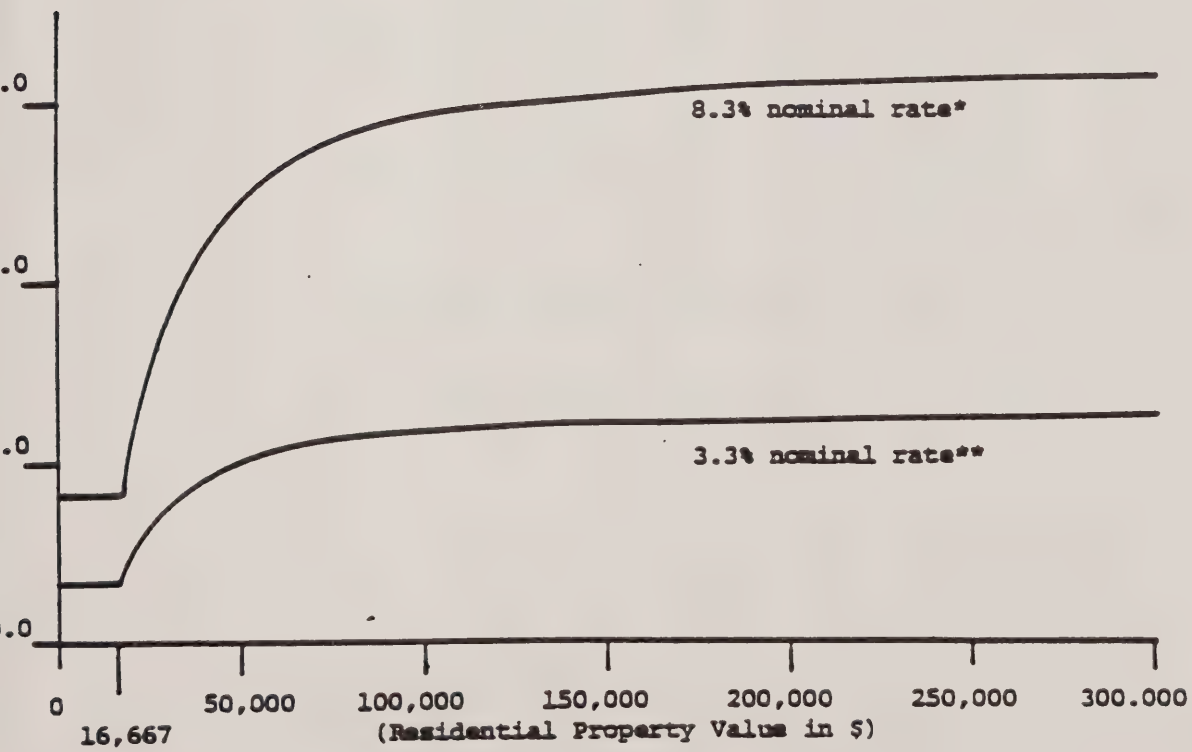
PROPERTY TAXES AS A PERCENT OF RESIDENT INCOME

Cities and Towns by Population Class	Per Capita Income	All Taxes	Residential Taxes		
			Current	100%	Classification
Boston	$5,196	13.31	4.76	5.83	4.25
50,000 or more	5,692	9.52	4.94	5.75	4.56
25,000-50,000	6,211	8.30	5.36	5.90	4.97
10,000-25,000	6,204	7.85	5.81	6.00	5.32
Less than 10,000	5,816	7.90	5.72	5.92	5.23
Massachusetts	5,945	8.63	5.35	5.87	4.92

Source: BRA Research Department.

Chart 5-1

PROGRESSIVITY SCHEDULE FOR RESIDENTIAL
PROPERTY TAXES UNDER THE MASSACHUSETTS CLASSIFICATION LAW



Other effective tax rates are:
* Commercial 4.17, Industrial 4.58, Open Space 2.08, Personalty 8.3.
** Commercial 1.67, Industrial 1.83, Open Space .83, Personalty 3.3.

Table 5-2

AVERAGE TAX BILLS [1] : CURRENT AND AT EQUILIBRIUM AFTER EQUALIZATION UNDER 100% OR CLASSIFICATION
LEVY AND PERSONALTY TAXES ARE TOTALS IN $M

	Levy	R1 1-Fam.	R2 2-Fam.	R3 3-Fam.	R4 Apts.	RC Mixed	C Comm'l.	I Indus.	AH Farm	L Land	P Personalty	
	1,296.8	1,379	1,463	1,385	5,092	4,092	12,740	27,054	4,423	458	149.3	Current
Population	"	1,704	1,769	1,565	4,882	4,666	11,303	21,755	3,695	719	80.8	100%
More than 50,000	"	1,333	1,344	1,086	4,415	4,919	13,043	26,048	6,649	732	174.7	Classification
	659.0	1,326	1,321	1,334	4,293	2,761	6,572	20,128	664	199	56.0	Current
Population	"	1,471	1,511	1,474	4,239	2,394	5,802	15,906	380	251	34,0	100%
25,000-50,000	"	1,229	1,219	1,129	4,146	2,825	7,347	20,527	744	269	69.3	Classification
	671.5	1,295	1,175	1,285	5,221	2,141	3,671	14,704	1,016	193	39.6	Current
Population	"	1,346	1,210	1,314	4,947	1,995	3,358	12,586	763	259	28.1	100%
10,000-25,000	"	1,181	1,026	1,148	5,293	2,526	4,407	17,383	1,740	205	56.5	Classification
	332.9	957	1,084	1,190	2,875	1,573	2,423	9,441	816	163	24.6	Current
Population	"	993	1,127	1,221	2,793	1,469	2,225	8,212	490	201	16.6	100%
Less than 10,000	"	867	1,001	1,115	2,923	1,890	3,068	11,461	1,059	161	34.3	Classification
	2,960.2	1,250	1,358	1,366	4,840	2,799	7,578	19,623	885	225	269.5	Current
State of	"	1,384	1,577	1,527	4,658	2,882	6,756	15,971	593	306	159.5	100%
Massachusetts	"	1,161	1,242	1,096	4,380	3,270	8,163	20,788	1,276	282	334.9	Classification

[1] All figures are actual or "as if" for Fiscal Year 1978.

Table 5-3

AVERAGE EFFECTIVE TAX RATES (%)[1]: CURRENT AND AT EQUILIBRIUM AFTER EQUALIZATION UNDER 100% OR CLASSIFICATION

	Average	R1 1-Fam.	R2 2-Fam..	R3 3-Fam.	R4 Apts.	RC Mixed	C Commer.	I Indust.	All Farm	L Land	P Personalty	
	5.7	3.9	4.4	5.5	6.5	5.8	7.9	8.7	6.8	3.4	11.3	Current
Population	5.9	5.2	5.9	6.6	6.1	7.0	6.5	6.1	5.2	6.3	6.1	100%
More than 50,000	5.6	3.7	3.9	3.9	5.2	7.7	8.2	8.5	14.3	6 5	13.3	Classificati
	3.5	3.0	3.4	3.8	4.0	4.9	4.1	5.1	6.4	2.4	5.7	Current
Population	3.5	3.4	4.1	4.4	3.9	4.0	3.5	3.7	3.0	3.2	3.4	100%
25,000-50,000	3.5	2.7	3.1	3.0	3.8	5.1	4.8	5.3	17.6	3.4	7.0	Classificati
	3.1	3.0	3.2	3.3	3.5	3.6	3.6	3.9	4.3	2.2	4.1	Current
Population	3.1	3.1	3.3	3.4	3.3	3.3	3.2	3.2	3.0	3.0	2.9	100%
10,000-25,000	3.1	2.7	2.7	2.9	3.6	4.5	4.7	5.0	9.9	2.3	5.8	Classificati
	2.3	2.3	2.4	2.4	2.5	2.5	2.7	2.7	5.3	1.5	3.2	Current
Population	2.3	2.4	2.5	2.5	2.5	2.3	2.4	2.3	2.7	1.9	2.2	100%
Less than 10,000	2.3	2.0	2.2	2.2	2.6	3.1	3.6	3.4	7.9	1.5	4.5	Classificati
	3.8	3.0	3.8	4.9	5.2	4.4	5.6	5.5	5.0	2.2	6.7	Current
State of	3.9	3.4	4.7	5.7	4.9	4.5	4.8	4.1	2.9	3.2	3.9	100%
Massachusetts	3.8	2.7	3.4	3.6	4.5	5.4	6.3	6.0	8.7	2.4	8.3	Classificati

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1) All figures are actual or "as if" for Fiscal Year 1978.

2) Although constant levies are central to the ceteris paribus environment of these estimates, "Average" effective rates are sometimes seen to change due to a presumed impact of capitalization on the tax base.

Note: The effective tax rates that would prevail under 100% equalization are not the same for all property types within a group of communities due to the uneven distribution of property types among high tax and low tax jurisdictions.

Table 5-4

AVERAGE PROPERTY VALUES [1]: CURRENT AND AFTER EQUILIBRIUM TAX CAPITALIZATION UPON EQUALIZATION UNDER 100% OR CLASSIFICATION
SUM AND PERSONALTY VALUES ARE TOTALS IN $M

	Sum	R1 1-Fam.	R2 2-Fam.	R3 3-Fam.	R4 Apts.	RC Mixed	C Commer.	I Indust.	AH Farm	L Land	P Personalty	
	22,744	35,735	33,051	25,275	78,735	71,121	161,192	312,566	65,010	13,628	1,315.9	Current
Population	22,027	32,612	30,107	23,549	80,403	66,338	173,167	356,724	71,074	11,451	"	100%
More than 50,000	23,001	36,188	34,189	28,156	84,376	64,234	158,662	314,280	46,460	11,345	"	Classification
	18,918	44,474	38,774	35,091	108,594	56,407	159,619	392,036	10,395	8,392	986.6	Current
Population	18,677	43,079	36,949	33,743	109,046	59.466	166,036	427,217	12,761	7,959	"	100%
25,000-50,000	19,066	45,405	39,758	37,064	109,825	55,877	153,165	380,756	9,726	7,810	"	Classification
	21,437	43,339	36,574	38,752	149,067	59,866	102,956	372,999	23,606	9,002	967.3	Current
Population	21,318	42,851	36,235	38,471	151,354	61,076	105,558	390,648	25,715	8,492	"	100%
10,000-25,000	21,632	44,435	38,005	40,068	148,484	56,658	96,153	350,678	17,575	8,936	"	Classification
	14,358	42,070	44,690	49,024	112,944	63,859	89,721	352,263	15,444	10,680	769.1	Current
Population	14,280	41,725	44,283	48,717	113,634	64,722	91,369	362,500	18,159	10,365	"	100%
Less than 10,000	14,467	42,934	45,490	49,741	112,508	61,218	84,350	335,429	13,420	10,700	"	Classification
	77,457	41,555	35,791	28,127	93,632	64,279	134,961	354,689	17,852	10,128	4,030.9	Current
State of	76,302	40,265	33,691	26,584	95,153	63,585	141,816	385,118	20,366	9,452	"	100%
Massachusetts	78,166	42,413	36,911	30,725	97,473	60,360	130,088	346,645	14,596	11,656	"	Classification

[1] All figures are actual or "as if" for Fiscal Year 1978.

Table 5-5

Frequency Distribution of Massachusetts Cities and Towns by Population Size Groups

Population Group	# Cities & Towns	% Share	Population in Each Group	% of Population in each Group
50,000 - Above	22	6.3	2,434,971	42.06%
25,000 - 50,000	39	11.1	1,206,196	20.83%
10,000 - 25,000	87	24.8	1,403,749	24.25%
10,000 - less	203	57.8	744,562	12.86%
Total	351	100.0	5,789,478	100%

Source: BRA Research/C. Carlaw/March 20, 1978
from Massachusetts State Census, 1975.

Table 5-6

AVERAGE PROPERTY TAXES AND VALUES IN BOSTON: 1978
Actual and Simulated for Equalization Under 100 Percent Valuation and Chapter 580 Classification
Totals and Personal Property Figures in $1,000s

	Total	R1 1-Fam.	R2 2-Fam.	R3 3-Fam.	R4 Apts.	RC Mixed	C Commercial	I Industrial	AH Farm	L Land	P Personal	
Tax Bills	$441.3M	1,365	1,449	1,521	6,857	6,247	26,317	42,852	6,238	962	$62.5M	Actual
	441.3	2,093	2,004	1,769	6,473	7,947	23,894	36,833	3,639	1,607	37.0	100%
	441.3	1,452	1,367	1,145	5,546	8,058	25,770	41,906	5,502	1,516	71.6	Classification
Effective Tax Rates	7.5	4.1	4.7	6.1	8.7	5.4	9.3	10.2	25.3	3.7	13.3	Actual
	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	100%
	7.4	4.4	4.3	4.0	6.2	8.0	8.9	9.8	17.9	7.1	15.2	Classification
Property Values	$5,876M	33,640	30,831	24,906	79,155	115,283	283,841	418,501	24,666	25,827	$471.1M	Actual
	5,615	26,638	25,498	22,518	82,361	101,116	304,028	468,657	46,313	20,452	471.1	100%
	5,958	32,809	31,621	28,523	90,083	100,194	288,403	426,381	30,797	21,209	471.1	Classification

All figures are actual or "as if" for Fiscal Year 1978.
Equalization estimates are at equilibrium levels after mutual adjustment of taxes and values.

Table 5-7

TAX AND VALUE CHARACTERISTICS OF BOSTON COMMERCIAL PROPERTIES: 1978
Actual and Simulated Equilibrium Upon Equalization Under 100% & Ch. 580
Totals in $1,000s Averages per Net Square Foot

	Old*		New	
	Total	Average	Total	Average
FY78 Assessment	$529,899	6.89	101,758	8.30
A/V Ratio	57%	54%	14%	14%
Value				
Actual	996,266	12.77	726,650	59.27
100%	1,276,819	15.17	568,672	46.38
(% Change)	(+28)	(+19)	(-22)	(-22)
Ch. 580	1,210,803	14.37	539,270	43.98
(% Change)	(+22)	(+13)	(-26)	(-26)
Taxes				
Actual	134,011	1.48	25,735	2.10
100%	100,345	1.19	44,692	3.64
(% Change)	(-25)	(-20)	(+74)	(+74)
Ch. 580	108,267	1.29	48,220	3.93
(% Change)	(-19)	(-13)	(+87)	(+87)

* The total and average figures for old commercial properties are not quite commensurate. The average column represents older downtown office buildings for which average taxes were reduced from $1.74 to $1.48 per square foot through the abatement and settlement process. These lower taxes were translated into greater profits and higher values. Consequently, the "average" percentage tax reductions and value increases are not as great as those estimated for the rest of the "total" group where abatements were assumed to be less extensive. See Table 4-9 in the preceding chapter and Volume II, Chapter 2 for details on the data, assumptions, and methods employed.

TABLE 5-8

EQUALIZATION SIMULATION FOR BOSTON ONE-, TWO-, AND THREE-FAMILY HOMES
FISCAL YEAR 1978 ACTUAL AND ESTIMATED EQUILIBRIUM TAXES UNDER 100% VALUATION AND CHAPTER 580 CLASSIFICATION
WARD AVERAGES CONDOMINIUMS NOT INCLUDED

WARD	ONE FAMILY						TWO FAMILY						THREE FAMILY					
	TAX BILL			PERCENT CHANGE			TAX BILL			PERCENT CHANGE			TAX BILL			PERCENT CHANGE		
	CURRENT	100%	CH. 580	CURRENT TO 100%		100% TO 580	CURRENT	100%	CH. 580	CURRENT TO 100%		100% TO 580	CURRENT	100%	CH. 580	CURRENT TO 100%		100% TO 580
1	$846	$1,526	$915	80	8	-40	$1,020	$1,734	$1,112	70	9	-36	$1,153	$1,658	$1,040	44	-10	-37
2	$571	$1,582	$968	136	44	-39	$802	$1,785	$1,160	123	45	-35	$1,128	$2,239	$1,590	99	41	-29
3	$762	$2,388	$1,731	214	127	-28	$1,365	$2,275	$1,624	67	19	-29	$1,815	$2,665	$1,993	47	10	-25
4	$1,666	$3,485	$2,770	109	66	-21	$2,756	$5,252	$4,443	91	61	-15	$2,899	$5,022	$4,225	73	46	-16
5	$3,453	$6,560	$5,681	90	65	-13	$4,173	$6,546	$5,668	57	36	-13	$4,502	$6,912	$6,015	54	34	-13
6	$599	$1,004	$421	68	-30	-58	$867	$1,410	$805	63	- 7	-43	$1,222	$1,733	$1,111	42	- 9	-36
7	$683	$1,204	$610	76	-11	-49	$1,039	$1,619	$1,003	56	- 3	-38	$1,269	$1,571	$958	24	-25	-39
8	$900	$1,046	$460	29	-43	-56	$933	$999	$416	7	-55	-58	$1,156	$1,187	$594	3	-49	-50
9	$645	$955	$374	48	-42	-61	$1,104	$1,439	$833	30	-25	-42	$1,168	$1,418	$812	21	-30	-43
10	$1,122	$1,458	$850	30	-24	-42	$1,618	$1,741	$1,118	8	-31	-36	$1,527	$1,553	$940	2	-38	-39
11	$911	$1,194	$601	31	-34	-50	$1,144	$1,327	$726	16	-36	-45	$1,508	$1,495	$886	- 1	-41	-41
12	$940	$883	$306	- 6	-67	-65	$1,244	$1,269	$671	2	-46	-47	$1,588	$1,333	$732	-16	-54	-45
13	$959	$1,087	$499	13	-48	-54	$1,137	$1,264	$667	11	-41	-47	$1,485	$1,353	$751	- 9	-49	-44
14	$946	$1,117	$527	18	-44	-53	$1,367	$1,321	$721	- 3	-47	-45	$1,624	$1,377	$774	-15	-52	-44
15	$992	$1,134	$544	14	-45	-52	$1,186	$1,325	$724	12	-39	-45	$1,599	$1,463	$855	- 8	-47	-42
16	$1,167	$1,590	$975	36	-16	-39	$1,564	$1,942	$1,309	24	-16	-33	$1,718	$1,843	$1,215	7	-29	-34
17	$1,195	$1,530	$919	28	-23	-40	$1,562	$1,876	$1,246	20	-20	-34	$1,694	$1,801	$1,175	6	-31	-35
18	$1,170	$1,735	$1,113	48	- 5	-36	$1,471	$1,966	$1,332	34	- 9	-32	$1,686	$2,063	$1,423	22	-16	-31
19	$1,585	$2,275	$1,625	44	3	-29	$1,653	$2,091	$1,450	26	-12	-31	$1,751	$1,995	$1,359	14	-22	-32
20	$1,423	$2,383	$1,726	67	21	-28	$1,844	$2,770	$2,092	50	13	-24	$2,014	$2,896	$2,212	44	10	-24
21	$1,988	$3,281	$2,577	65	30	-21	$2,383	$3,613	$2,891	52	21	-20	$2,936	$4,103	$3,355	40	14	-18
22	$1,240	$2,160	$1,515	74	22	-30	$1,695	$2,833	$2,152	67	27	-24	$1,980	$2,904	$2,219	47	12	-24
CITY AVERAGES																		
	$1,246	$1,955	$1,321	57	6	-32	$1,461	$2,020	$1,383	38	- 5	-32	$1,561	$1,815	$1,189	16	-24	-35
CITY TOTALS ($1,000S)																		
	$36,420	$57,145	$38,618	57	6	-32	$28,424	$39,301	$26,905	38	- 5	-32	$25,664	$29,851	$19,552	16	-24	-35

EQUALIZATION SIMULATION FOR BOSTON ONE-, TWO-, AND THREE-FAMILY HOMES
FISCAL YEAR 1978 ACTUAL AND ESTIMATED 100% VALUATION TAXES FOR "INITIAL IMPACT" AND TAX CAPITALIZATION "EQUILIBRIUM" VALUES
WARD AVERAGES CONDOMINIUMS NOT INCLUDED

WARD	ONE FAMILY						TWO FAMILY						THREE FAMILY					
	TAX BILL			PERCENT CHANGE			TAX BILL			PERCENT CHANGE			TAX BILL			PERCENT CHANGE		
	CURRENT	I.I.	EQUILIB	CURRENT TO I.I.	CURRENT TO EQU	I.I. TO EQU	CURRENT	I.I.	EQUILIB	CURRENT TO I.I.	CURRENT TO EQU	I.I. TO EQU	CURRENT	I.I.	EQUILIB	CURRENT TO I.I.	CURRENT TO EQU	I.I. TO EQU
1	$846	$1,950	$1,526	130	80	-22	$1,020	$2,173	$1,734	113	70	-20	$1,153	$1,949	$1,658	69	44	-15
2	$671	$2,170	$1,582	223	136	-27	$802	$2,415	$1,785	201	123	-26	$1,128	$2,942	$2,239	161	99	-24
3	$762	$3,456	$2,388	354	214	-31	$1,365	$2,832	$2,275	107	67	-20	$1,819	$3,160	$2,665	74	47	-16
4	$1,666	$4,643	$3,485	179	109	-25	$2,756	$6,821	$5,252	148	91	-23	$2,899	$6,333	$5,022	118	73	-21
5	$3,453	$8,512	$6,560	146	90	-23	$4,173	$7,969	$6,546	91	57	-18	$4,502	$8,345	$6,912	85	54	-17
6	$599	$1,252	$1,004	109	68	-20	$867	$1,740	$1,410	101	63	-19	$1,222	$2,026	$1,733	66	42	-14
7	$683	$1,526	$1,204	123	76	-21	$1,039	$1,966	$1,619	89	56	-18	$1,269	$1,719	$1,571	35	24	- 9
8	$808	$1,171	$1,046	45	29	-11	$933	$1,003	$999	7	7	- 0	$1,156	$1,156	$1,187	0	3	3
9	$645	$1,136	$955	76	48	-16	$1,104	$1,617	$1,439	47	30	-11	$1,168	$1,535	$1,418	31	21	- 8
10	$1,122	$1,636	$1,458	46	30	-11	$1,618	$1,752	$1,741	8	8	- 1	$1,527	$1,502	$1,553	- 2	2	3
11	$911	$1,346	$1,194	48	31	-11	$1,144	$1,400	$1,327	22	16	- 5	$1,508	$1,420	$1,495	- 6	- 1	5
12	$940	$803	$883	-15	- 6	10	$1,244	$1,230	$1,269	- 1	2	3	$1,588	$1,089	$1,333	-31	-16	22
13	$959	$1,130	$1,087	18	13	- 4	$1,137	$1,300	$1,264	14	11	- 3	$1,485	$1,198	$1,353	-19	- 9	13
14	$946	$1,190	$1,117	26	18	- 6	$1,367	$1,230	$1,321	-10	- 3	7	$1,624	$1,137	$1,377	-30	-15	21
15	$992	$1,186	$1,134	20	14	- 4	$1,186	$1,365	$1,325	15	12	- 3	$1,599	$1,300	$1,463	-19	- 8	13
16	$1,167	$1,824	$1,590	56	36	-13	$1,564	$2,129	$1,942	36	24	- 9	$1,718	$1,851	$1,843	8	7	- 0
17	$1,195	$1,704	$1,530	43	28	-10	$1,562	$2,019	$1,876	29	20	- 7	$1,694	$1,798	$1,801	6	6	0
18	$1,170	$2,067	$1,735	77	48	-16	$1,471	$2,236	$1,966	52	34	-12	$1,686	$2,243	$2,063	33	22	- 8
19	$1,585	$2,673	$2,275	69	44	-15	$1,653	$2,315	$2,091	40	26	-10	$1,751	$2,083	$1,995	19	14	- 4
20	$1,423	$2,970	$2,383	109	67	-20	$1,844	$3,315	$2,770	80	50	-16	$2,014	$3,404	$2,896	69	44	-15
21	$1,988	$4,069	$3,281	105	65	-19	$2,383	$4,341	$3,613	82	52	-17	$2,936	$4,764	$4,103	62	40	-14
22	$1,240	$2,729	$2,160	120	74	-21	$1,695	$3,528	$2,833	108	67	-20	$1,980	$3,441	$2,904	74	47	-16
CITY AVERAGES																		
	$1,246	$2,380	$1,955	91	57	-18	$1,461	$2,334	$2,020	60	38	-13	$1,561	$1,919	$1,815	23	16	- 5
CITY TOTALS ($1,000S)																		
	$36,420	$69,574	$57,145	91	57	-18	$28,424	$45,411	$39,301	60	38	-13	$25,664	$31,549	$29,851	23	16	- 5

6. THE PRESENT ARENA FOR ACTION

Summary

With the tax limitation of "2½" and the consequent severe constraint on public services and infrastructure investment expenditures, in the setting of a relatively thriving city and state economy, which could suffer from inadequate public sector backup, the much heralded "tax reform" and related revenue and expenditures solutions are urgently needed. A very broad and varied range of alternative measures have been proposed by a number of recent observers. There is a large challenge and opportunity for imaginative, innovative, forward-looking law-making.

Proposition "2½", now in its third year of implementation, broadly changed the tax profile and tax incidence of city and state, thereby achieving long-held goals on the reduction of the property tax burden. The cutback in the City tax levy was accompanied, as expected, by reductions in the levels of municipal expenditure and employment. These impacts were further swelled by the revenue drain of "Tregor" tax abatement payments and are being mitigated, in part, by increases in state aid distribution, growth in non-tax revenue (user charges and fees), revaluation, classification, and a development investment boom which is bolstering the property tax base.

Scholars and fiscal analysts project new revenue needs beginning with FY1985. Enlightened members of the state legislative community argue the merit of new state initiatives for more revenue for Boston, as a matter of equity and justice, as well as need. The Governor and the legislature are scheduled to form a new "tax study commission" later this year.

Revenue raising proposals include a range of state, metro region, and city taxes, the state assumption of certain city costs and functions, and improvement in state aid distribution formulae, with the City's role in the state economy, its contribution to state revenue, and its high municipal cost structure arguing for an augmented revenue flow.

The needed resources are potentially available; an enhanced city and state capacity to raise new revenue has emerged. The business contribution to state revenue has been declining over a long period of years. Boston and Massachusetts tax burdens now compare favorably with that of other cities and states, making the state more competititve. The recent experience and fine outlook for the economy of the City and that of the state suggest a growing capability for generating more revenue.

Need, justice and equity must be matched by new path-breaking legislative revenue formulations.

Proposition "2½" and Its Aftermath

Proposition "2½" has done large things. For the state as a whole, property taxes have been rolled back $500 million since 1981, representing a reduction of fifteen percent on a base of $3.3 billion of city and town property tax revenue raised. The effective tax rate has been cut from four percent to three percent and is well on its way to 2.5 percent. The dragon of Taxachusetts has been slain. Though property taxes per capita and as a percent of state and local revenue remain higher than those of other states, the more limited reliance of Massachusetts on the sales tax and user charges results in an overall burden which places that of Massachusetts on a par with that of other states.[1] Moreover, the state and local tax burden as a percent of state

personal income has been declining since 1977, and is at the lowest level in more than ten years.[2]

These gains were achieved at a cost, however. An expansion of state aid to cities and towns offset about half of the reduction in the property tax levy. But without new revenue measures, the state itself was forced, consequently, to reduce services, public investment, and public employment. The reduction of the infrastructure planning capacity at the State Public Works Department became a minor scandal when the state was unable to take advantage of available federal money for road-building, and was additionally fined by the U.S. Department of Transportation for inadequate professional staff capacity for planning road repair and replacement. For the cities and towns of Massachusetts, public education and public infrastructure were the big losers.[3] Furthermore, the Proposition "2½" law itself cast doubt on the ability of cities and towns to use their tax base to repay bonded indebtedness, and many cities and towns experienced a two-year moratorium, withdrawing from the bond market, as Moody's and Standard and Poor's removed ratings.[4] In an effort to minimize the impact of Proposition "2½", many cities and towns accelerated their process of assessment revaluation and imposed new fees and user charges.

For Boston, the achievement of long-held goals on property tax reduction was greater and the curtailment of public services and public investment was more drastic. The property tax levy has been reduced from $519 million, in FY1981, to $333 million, in FY1984, representing a cut of $186 million, or 36 percent.[5] The effective property tax rate (the levy in relation to property value), had fallen from 7.5 percent, in FY1979, to 4.5 percent, in FY1981, reflecting the appreciation in

value following the post-1978 surge in demand for housing and office space, a national and local phenomena. An element of tax capitalization also appears to have been involved as the anticipation of lower taxes contributed to the rise in property value. As the property tax levy was reduced, the effective tax rate dropped to three percent in FY1983 and 2.5 percent in FY1984, with the Proposition "2½" mandated fifteen percent curtailment of the tax levy per year until the 2½ base was reached; Mayor White announced the FY1984 tax rate on September 21, 1983.[6] See Table 6-1. This represents the lowest effective property tax rate in more than forty years in Boston.

With classification, the effective tax rate for residential property, for FY1984, is 1.7 percent and for commercial property 3.3 percent. (Eighty percent of residential taxpayers have received lower tax bills since 1981). This landmark accomplishment is large even though the property tax burden remains high in comparison with the rest of the nation, where greater reliance on the sales tax and user charges make possible a lighter property tax levy. (For the nation as a whole, the average effective tax rate for FHA-insured, single-family homes, in 1980, was 1.3 percent).[7]

These extraordinary benefits were achieved at a considerable social and economic cost, in Boston, in reduced public services, public investment, and public employment.[8] The enforced belt-tightening in the public sector role threatens the future of the City's thriving economy, adversely affects the quality of life, and fosters unnecessary class warfare between Downtown and the neighborhoods. In FY1982, Boston's municipal operating expenditures were reduced by $72 million (11 percent) even with an important increase in state aid which offset half

the loss in tax levy. The number of municipal employees was more severely impacted, with a reduction from 23,137, as of January 1, 1981, to 17,971, as of January 1, 1982, representing a decline of 5,166 persons, or 22 percent. Since FY1982, the City rebuilt its services level, in part, with a five percent increase in municipal employees (860). See Table 6-2. This was made possible through minor increases in non-tax revenue and the sale of City assets. These cold numbers reflect three years of neighborhood turmoil as people fought the closing of police and fire stations and the firing of school teachers.

The impact on City public investment was larger and recovery is not in sight. City of Boston capital expenditures had averaged $17 million per year in the 1960s, continuing the long period of relative neglect following 1929, even while Mayor Collins was having great success in marshalling federal urban renewal dollars and private development investment. An important effort a neighborhood revitalization was launched in the 1970s by Mayor White with an average annual level of city capital expenditures of $63 million, representing a major endeavor to rebuild Boston's schools, libraries, police and fire stations, community buildings, parks, and Boston City Hospital. Outlays had peaked in FY1976 at $108 million. In 1980, when fiscal constraints were already impacting, city public investment totalled $62 million.

Following the adoption of "2½" in November 1980, however, Boston was forced out of the long-term bond market. City public investment fell to $25 million, in FY1981, and $8 million, in FY1982, drawing on bond issues emitted in earlier years. In FY1983, capital outlays reached $20 million utilizing general revenue funds. For FY1984, Boston plans to spend approximately $30+ million on capital projects, drawing

on proceeds of a $30 million long-term general obligation bond issued on September 1, 1983 as well as some of the proceeds of the sale of city garages.[9] See Table 3.

This limited entry into the bond market was made possible by the Funding Loan Act of 1982 (the so-called Tregor Bill which financed the payment of disproportionate assessment refunds), the State approval of the City's revaluation and classification in June 1983, and the prospect that FY1984 would be the last year of tax levy cuts under "2½" and that the tax levy would rise modestly thereafter with development and the appreciation of property values (including an element of tax capitalization).

The impact of the reduction in City of Boston public investment expenditures posed a threat to the private development investment boom and progress in the revitalization of the City's neighborhoods. This danger has been mitigated, in part, by a number of temporal factors. Private developers were willing and able to fund some infrastructure costs associated with their development projects. The successful effort at renovation of the City's infrastructure, in the 1970s, left Boston in reasonably good shape, although much remained to be done. Nevertheless, the future potential of Boston as aplace to live and work, and the related role and need for an adequate level of infrastructure expenditures, remain hostage to the prospect for new revenue sources for the City.

In the meantime, one of the additional casualties of "2½" is the property tax incentive that was so important in launching Boston's economic revival in the 1960s. When property taxes were high (7.5 percent in 1979, and more for commercial property), the tax exemption

with in-lieu-payments were an important incentive. With an effective tax rate of three percent for commercial property in FY1984, the incentive carries less weight.

The effect of lost property tax revenue has been compounded by reductions in Federal aid. For FY1984, in comparison with FY1981, federal funding for revenue sharing fell from $21.9 to $18.6 million; for employment training, from $32.5 million to $7.7 million; for Community Development Block Grants, from $25.8 million to $23.3 million; for Education, from $3.5 million to $695,000.[10]

The Need for New Revenue

The attrition in Boston's revenue base, and the implications for the quality of life and the viability of the City's economy, have touched off loud sounds of alarm by informed observers, the academic community, the business community, legislators, and the press--all concerned with the need for new revenue. Most notably, those concerned look at the question from distinct points of departure, and, though the range of the assessment of requirements varies, the conclusion is the same. Namely, Boston needs, and merits, new revenue.

- The Bradbury-Yinger Report

Katherine L. Bradbury and John Yinger, in a report entitled Adjusting to the 1980s; Boston's Fiscal Situation in the Years Ahead, prepared for the MIT-Harvard Joint Center, and presented to the Boston Workshop Series, earlier this year, address the question of the revenue gap in the next three fiscal years (FY1984 through FY1986) if Boston is to recapture the level of expenditures in the last pre-"2½" year, FY1980.[11] They conclude that if the City is not to cut departmental spending by 14 percent by 1986, the City must obtain new local revenue

sources equal to 45 percent of existing nonproperty local tax revenue, or receive a 31 percent increase in state aid, or some combination of these changes. Even without provision for the restoration of more appropriate pre-1980 levels of public service and public infrastructure expenditures, the spending-revenue gap is projected at $265 million, in FY1985, and $291 million, in FY1986. They find that "Boston's relatively high per capita spending is due largely to Boston's extensive expenditure responsibilities and to the high cost of providing services in Boston". They also note that "inefficient service provision raises Boston's spending by a maximum of seven percent for public safety services and a maximum of four percent of total spending.

- The Slavet-Torto Report

Joseph S. Slavet and Raymond G. Torto, in a September 1983 report, entitled Boston's Fiscal Future: Prognosis and Policy Options for 1984 to 1986, prepared with the encouragement of Robert A. Corrigan, Chancellor, University of Massachusetts, stimulated by the deliberations of the Boston Workshop series, identify the revenue shortfalls foreseen for this and the next two fiscal years. Their method is to project "how much revenue is available for spending", and they note that "If planned appropriations exceed revenue, the equation must be bridged by reducing expenditure commitments".

Using the approach of "cutting the suit to fit the cloth", the authors look carefully and skillfully at prospective revenue for the current and next two fiscal years, measuring the likely growth in the property tax base and the yield, and adopting knowledgeable assumptions on state and and federal revenue sharing. Expenditure needs are treated in a more summary fashion and with a lesser depth of understanding.

Expenditure projections are casually fashioned using essentially a "hold-harmless" criteria with a FY1981 baseline, a year already impacted by austerity measures, and adding known anticipated increases in pension costs. For departmental operating costs, there is an allowance for a nine percent increase in costs in FY1985 and five percent in FY1986. The conclusion: "the City....faces annual operating gaps in the range of $32-50 million....The choices are budget cuts and increased efficiencies, service eliminations and/or transfers to the state, and/or new revenue sources." A "menu of options" is presented.

The "menu" is imaginative, and represents a useful point of departure, but may not be sufficient in view of the authors' limited view of expenditure requirements. Little allowance is made for the needed recovery in City public infrastructure expenditures; their projections provide for a $30 million bond issue in Spring 1984 and a $60 million issue in Spring 1985. There is little provision for the restoration of public services, or for the Federal cutbacks in aid for community development, employment training, education, and other social programs.

- The Boston Municipal Research Bureau

The privately funded Boston Municipal Research Bureau has long been concerned with the need for new revenue for Boston. In an article in the Boston Globe, August 22, 1983, addressed to the next Mayor of Boston, Samuel R. Tyler, Executive Director, wrote "Boston's fiscal problems require long-term solutions....As long as the City must rely on the property tax to pay for almost forty percent of its current service requirements, the prospect of gaps between revenues and expenditures will persist. Boston and other cities face shortfalls in 1985 and

beyond because their revenue structure may not support normal revenue growth. One of the first steps the new mayor should take is to begin working with the Governor, the Legislator and the new Tax Study Commission to develop legislation that would guarantee the sharing of the growth taxes between the state and its municipalities. A mechanism to fairly distribute the local share of these taxes, taking into consideration service demands, must then be established."[13]

- The Bradbury-Ladd Articles

A two-part article by Katherine L. Bradbury and Helen F. Ladd, with Claire Christopherson, entitled "Proposition 2½: Initial Impacts, Parts I & II", and published in the Federal Reserve Bank of Boston, New England Economic Review of January/February and March/April 1982, has already had an important impact on state aid for Boston.[14] The authors present estimates of the impact of "2½" on Massachusetts cities and towns in FY1982, and then go on to note "The Equalizing Municipal Grant (based on the state aid distribution formula) has been criticized as not meeting one major goal of new state aid for FY1982, that of "cushioning" the impact of Proposition 2½ on local budgets. An earlier proposal would have directly addressed the "cushioning" goal by replacing approximately half the revenue loss of each community. As a one-year program this "half-gap" aid would have given cities and towns more time to adjust to Proposition 2½'s limits. This form of aid--i.e., aid to offset a determinate fraction of each local government's revenue loss--was also the approach taken by the California legislature in response to Proposition 13". This suggestion was subsequently incorporated in the state aid distribution formula for FY1983.

Looking to the future, the authors identify the need for a new state aid formula, noting that "needs for local government services and the costs of providing them vary across cities and towns....To minimize the adverse long-run effects of the Proposition, the state should set up a guaranteed revenue-sharing program for future years with the funds distributed to local communities inversely to local resources and directly with service needs."

- The Bradbury et al. Study

Following up on this notion, an article, entitled "State Aid Distribution Formulas: The Need for More Equalization," published by the Massachusetts Institute of Technology, in Impact: 2½, September 15, 1983, in which Katherine L. Bradbury and Helen F. Ladd are joined by Mark Perrault, Andrew Reschovsky, and John Yinger, presents indexes of the cost of public services for each of the 351 cities and towns of Massachusetts.[15] See Table 6-4. For Boston, in comparison with all other cities and towns in Massachusetts, total public service costs are 38 percent higher, and nonschool costs are 52 percent higher, reflecting the need to serve the 300,000 suburban workers who come into the city each week-day, the higher population density, the precent of the population below the poverty line, the age of the housing stock, and the crime rate.

- The Bank of Boston Municipal Debt Service Report

A just-issued report, entitled Debt Survey of Massachusetts Cities & Towns; Massachusetts Municipal Data Basae, edited by Dr. Neville Lee, Bank of Boston, September 1983, focuses important light on the need for new revenue.[16] The study examines the debt of Massachusetts cities and towns in the light of property tax limitations mandated by Proposition

2½. The finding is that "the debt of the state's municipalities is not only low in comparison to the national average but is also declining. While the observed level of debt may indicate sound financial management it also suggests that cities and towns may be reluctant to incur the additional debt service charges required to undertake costly capital improvement projects in support of future economic development."

The author goes on to note "....with....the tax levy limited to 2½ percent...., some communities are finding it increasingly difficult to accommodate new debt service while maintaining current funding levels for traditional public services....At the same time, vigorous growth in the state economy since 1975 has produced new demands for public investment; namely, the repair and rebuilding of local infrastructure and the expansion of services. For municipalities, continued economic development requires new public capital investment...."

An analytical table presented in the report shows that Boston's direct debt increased by 115 percent, in the period 1970-82, and 21 percent, from 1975 to 1982, while declining by 16 percent, from 1980 to 1982, highlighting the periods of rapid growth in infrastructure investment, 1970-75, modest growth, 1975-80, and fall, 1980-82. For all 39 of Massachusetts cities, taken as a whole, debt increased by 63 percent, over the 1970-82 period, and six percent between 1975 and 1982, while declining by ten percent from 1980 to 1982.

- Representative Michael J. Barrett

Undoubtedly, the most eloquent and profound recent statement on the merit and need for new revenue for Boston is the article by Michael J. Barrett, Massachusetts State Representative for the towns of Reading, North Reading and Wilmington, entitled "The Out-of Towners; Invasion of

the Suburbanites; Assessing the Tax Free Bite on Boston", published in the Boston Globe, August 7, 1983.[17] See Appendix 6-1. Noting Boston's fiscal predicament (the effect of the "Tregor" nine-digit court verdict and the 2½ mandate to reduce future property taxes in the face of double-digit inflation), Representative Barrett surveyed his constituents and found that, while seventy percent felt little or no responsibility for Boston's situation, "in 125 Reading households, randomly chosen, there were 128 instances of someone finding a job, getting major medical help, or completing an education in Boston...." A further inquiry found significant numbers of Reading residents with memberships in the cultural institutions of Boston; sizable numbers had been treated in a single year in the City's forty major medical institutions; and that a large number of Reading residents held degrees from Boston's many colleges and universities. Barrett notes that these and other institutions, making up 51 percent of Boston's land area, do not pay property taxes, and that those who use the institutions are predominantly suburbanites.

Barrett conducted a subsequent survey of the 66 legislators (half of the total) who had voted against the "Tregor" financing bill on January 5, 1982, and found that "Twenty-four had attended college or graduate school at tax-exempt institutions in Boston." Barrett made a heartfelt plea to these institutions to marshall their 217,000 graduates residing in Massachusetts outside Boston to mobilize support for the value of the Region's largest city as a "Whole Earth Catalog" of tools set out for everyone's use.

- John Brouder

John Brouder, a staff member of the State Legislature's Taxation Committee, writing in the Boston Globe, August 17, 1983, in an article entitled "Boston Needs Outside Help" notes the half million commuters daily who come to Boston to work and shop, that "all of their income or sales tax payments end up in the state's, not the city's coffers", and that "their failure to contribute" exacerbates Boston's fiscal situation.[18] His conclusion: "it is time to give our state's capital city the respect--and the revenue--it deserves".

- Kirk Scharfenberg

Kirk Scharfenberg, deputy editor of the editorial page, writing in the Boston Globe, September 24, 1983, in an article entitled "Repaying Boston for Tax Losses", noted that: "No city in the nation other than Washington has a greater percentage of tax-exempt property than Boston. No city has a more compelling claim to its state for help in paying the subsidies to tax-exempt institutions".[19]

An Illustrative Revenue-Raising Proposal

Boston's needs for new revenue are large, as noted. There is a growing consensus among informed observers on the need for new revenue for Boston, and a broad range and variety of measures have been presented in the large handful of recent reports and articles (referenced at the end of this chapter). The revenue needs must be met if Boston is to provide the public services and facilities required to make and keep the City and its neighborhoods attractive as a place to live and work, and carry out a forward-looking role in investment and development and neighborhood revitalization.

Unfortunately, many of the most prominent proposals, by themselves, simply would not raise enough revenue for Boston. But the Boston economy is rich and thriving. All that is needed is to tap that strength in ways for which there is ample state precedent. Such a proposal is here precedented, drawing on the many thoughtful analyses recently focused on Boston's needs. The proposal is illustrative of the kind of fiscal package that could be mounted.

The proposed fiscal package is a "new model" with "standard" and "custom" features. Targeted expenditures--fixed costs, large and growing for retirement pensions, debt service, and county costs and that of penal institutions, over which Boston and other cities and towns have only very limited control--are matched with targeted revenues--an employer tax on payrolls, administered by the state and benefitting all cities and towns of the Commonwealth. Boston would pay its own way. Metro region assessments--MBTA, MDC, and other state assessments--would be funded by an add-on sales tax within the metro region. The tax would be state-administered; Boston would pay its own way. The state aid distribution formula would be improved to incorporate measures of the higher cost of services in Boston, as well as the large share of the state production of goods and services originating here, Boston would be reimbursed by the state for one-fourth of the projected yield of tax-exempt property (if it were taxed). Implementing widespread recommendations, Boston would make progress toward increasing own-source revenues with a parking excise tax and hotel-motel excise and meals tax add-ons.

- Funding Expenditure Needs through Targeted Revenues

In sum, the pricipal aspect of the fiscal proposal would take large and growing fixed costs (pension and debt service) impacting all of the Commonwealth's cities and towns and fund them through targeted revenues (the employer tax on payrolls) in a state-administered program. Boston, with twenty percent of the state's jobs, would more than pay its own way. A second element of the fiscal package would finance state assessments (MBTA, MDC, and other) in the metro region with the targeted revenue of an add-on to the state sales tax for that area, liberating the metro cities and towns from a difficult budget responsibility. Again, Boston would pay its own way. These measures would free up city and town budget burdens, enabling them to address those public service and public improvement needs that have suffered through enforced attrition and federal aid cuts of recent years.

These proposed fiscal formulations would be supplemented by an improved state add distribution formula incorporating indexes of public service costs, and geared to providing Boston with the twenty percent of state aid increments reflecting the City's contribution to the state production of goods and services. There would also be state reimbursement for one-fourth of the projected hypothetical yield of property tax-exempt under state law, and small new additions to Boston's own source revenue (other than the property tax).

The resulting package would enable Boston and other cities and towns to meet the public service and public improvements needs of the 1980s. In the case of Boston, these measures, calibrated to FY1985, would free up an estimated $150 million of fixed costs, add an estimated

$30 million in state aid, $15 to $30 million in state reimbursements for tax exemption, and $20 million in own source revenue.

Some pertinent features of the proposed fiscal package underline its attractiveness as a major public policy initiative rivaling the role of the enactment of the sales tax in 1967 in alleviating cities and towns of welfare costs.

- State Takeover of Pension Costs

Boston and other cities and towns participate in a state contributory retirment system (for public employees) whose statute prescribes the formula for computing retirement allowances. These are paid from a fund supported by employee, City and state contributions. Employee contributions in the form of a mandatory payroll deduction are supplemented by the City which absorbs approximately ninety percent of pension costs. The City is reimbursed by the state for pensions for teachers who contribute approximately one-third of all City employees. Mayor Kevin H. White, in a presentation to the Municipal Research Bureau on September 21, 1983, recommended that the state absorb the cost of police and firemen's pensions, in addition to that of teachers. Pension costs absorbed $76 million of Boston's budget, in FY1981, (nine percent of total expenditures) and are expected to cost $113 million, in FY1985, and $124 million, in FY1986, even if current levels of fiscal austerity continue.[20] Under the proposed state takeover, all cities and towns would benefit.

- State Assumption of Debt Service

Debt service payments are estimated at $72 million, for FY1984, and are projected to grow to $76 million, in FY1985, and $81 million, in FY1986, even though Boston had not issued long-term general obligation

bonds, to fund public infrastructure investment, in almost three years, and assuming only modest new issues in FY1984 and FY1985.[21] The Bank of Boston, in its landmark report, Massachusetts Municipal Data Base; Debt Survey of Massachusetts Cities and Towns, found the burden of debt service to be a statewide problem impacting virtually all cities and towns, and inhibiting needed public improvements required to enhance the quality of life and support economic development.[22] The report found the debt of the state's municipalities to be low and declining, reflecting a reluctance to incur additional debt service charges required to undertake capital investment projects. The report concludes with a clarion call. "If the Commonwealth is to achieve the expected levels of growth in the future, a healthy infrastructure will be essential. Moreover, the importance of economic growth to the financial health of the state and its municipalities makes the maintenance of capital improvement programs even more imperative."

In the proposal here presented, the state would assume city and town debt service costs, in accordance with a currently historic year baseline. Future levels of debt service to be absorbed would be indexed to capital construction costs and municipal bond interest rates. The state would administer debt servicing and long-term bond issues (at the lower rates available to the state). Cities and towns desiring to engage in public infrastructure improvements beyond the indexed baseline level would have to fund this excess directly. Current city and town net direct debt, in Massachusetts, is approximately $2 billion, and debt service payments are about $300 million. Obviously, some creative program formulation and law-making are called for. A state-administered program would cost less.

- State Responsibility for County and Correctional Institution Costs

County costs and the cost of correction institutions, over which Boston has no funding option, are projected to cost the City $33 million, in FY1985, and $35 million, in FY1986. These and similar costs for other cities and towns would also be absorbed by the State.

- State Imposition of a 2% Employer Payroll Tax

State absorption of pension costs, debt service costs, county costs, and correctional institutions costs, for all of the cities and towns in Massachusetts, would be funded by a two percent employer tax on payrolls. Such a tax would yield an estimated $750+ million statewide, in FY1985.[23] Of this, an estimated $160 million would be raised in Boston, and $13.5 in Lynn, for example. (See John Avault, "Making Proposition 2½ Work through Statewide Revenue Reform," March 23, 1982, published in Volume II, Chapter 4 of the present report.)

- A 2% Add-On to the Sales Tax in the Metro Area

State assessments of costs to Boston for its share of the MBTA deficit, the MDC and other programs, are projected to amount to approximately $50 million of Boston budget expenditures in FY1985.[24] These and similar costs for the Boston metro region counties would be funded by a 2% add-on to the state sales tax applied to the metro area. Such an add-on would yield an estimated $255 million in the metro area (two-thirds of what such an add-on would raise statewide), in FY1985, including $42 million in the City of Boston and $5 million in Lynn, for example.[25] A new 2% sales tax on selected services would yield $107 million in the metro area and $32 million in Boston, in FY1985. Boston could pay its way for MBTA and MDC services and other state assessments. Some creative lawmaking is also needed here.

- An Improved Formula for State Aid Distribution

State aid to cities and towns totalled $1,502 million, in FY1983, and $1,667 million, for FY1984. Correspondingly, Boston had received $270 million, in FY1983, and is scheduled to receive $303 million, in FY1984, representing eighteen percent of the statewide total in both years, and an increase of $33 million or twelve percent (equivalent to twenty percent of the increment in state aid), as the FY1984 state budget formula provided special assistance to cities and towns most seriously affected by the third year of property tax levy reductions under Proposition 2½.

The state-aid distribution formula should be improved to assure a Boston share of twenty percent of the annual increment, in line with the contribution of the City's economy to that of the state (gross product) as well as criteria of need and resources. Recent proposals for the use of an index of public service costs, reflecting Boston's higher costs due to its greater responsibilities, represent a useful element in any proposed new formula.[26] This would add an estimated $30 million to Boston's revenue for FY1985.

- State Reimbursement for Property Tax Exemption

With more than fifty percent of Boston's land area exempt from the City's property tax, under State law, Massachusetts would draw on the precedent of a recently enacted Connecticut measure wherein the state would reimburse cities and towns up to one-fourth of the hypothetical yield of a tax on tax-exempt property. Such a reimbursement would provide an estimated $15 to $30 million in new revenue for Boston.[27] Representative Michael J. Barrett has eloquently spoken to the justice

of reimbursement to Boston for the costs of services to the tax-exempt institutions of the City.[28]

- New Own Source Revenue for Boston

Symptomatic of what appears to be a growing consensus on Boston's need for "own source" revenue is the special report of the privately-funded Municipal Research Bureau, entitled Broadening Boston's Tax Base; New Local Tax Sources Should Be Made Available to Boston, Vo. 82-4, April 21, 1982.[29] The Bureau noted that "Boston remains unique among comparably sized cities in having to rely solely on the property tax to fiance its government expenses". Their survey of twenty comparable cities across the country showed that property tax revenue made up 31 percent of total local revenue in comparison with 78 percent for Boston. The Bureau concluded "New local tax sources should be made available to Boston to broaden its tax base".

A similar view on the need for new local "own-source" revenue, was expressed by the Massachusetts Senate Ways and Means Committee in its FY1983 state budget presentation. After noting the need to improve on the state aid distribution formulae in future years, from the point of view of both long-term criteria (equalization) and short-term considerations ("2½" revenue loss replacement), the Committe noted that....local and state officials should....focus on maximizing communities non-property tax revenues to supplement state aid".[30]

The beginnings of new local "own source" revenues for Boston received an impetus with the signing into state law of the 1982 Funding Loan Act (otherwise known as the Boston Financial Plan, the so-called "Tregor Bill"), on June 29, 1982. The new revenue measures adopted were temporary and limited to the requirements to service the special bond

issue for paying court-ordered tax abatements. Nevertheless, they include the revenues from the state room tax on newly constructed hotels in Boston, a levy of $500 per unit tax on condominium conversions, and the proceeds of the deeds transfer tax.

A proposed 20% parking excise tax and an add-on hotel-motel tax would raise an estimated $16 million.

The foregoing illustrative fiscal program represents one combination of the many tax policy proposals recently presented.

- Criteria

Useful criteria in the formulation of a tax and fiscal policy program should include the following guidelines.

The program should be large enough to accommodate the needs of Boston and its neighborhoods for public services and public infrastructure. Merely regaining the austerity baseline of FY1980 or FY1981 would not be sufficient to provide for needs.

While the number of candidate measures for tax revenue, user charges, and state assumption of costs is large, recommended measures should be fewer and complementary to enhance the potential for effective and efficient administration.

Proposed measures should help achieve the major goal of a more balanced state and local revenue structure, in comparison with other states, with lesser reliance on the property tax, and a greater role for user charges and broad-based taxes.

Measures should match major segments of Boston's expenditure budget, with targeted funding measures.

Measures should be designed on the criteria that Boston pay its own way, to the extent of its resource base. Cities and towns should be

asked only to play the good neighbor role--helping to adopt those measures which Boston needs on a fair share basis.

Alternative Revenue-Raising Proposals

The plight of Boston and other Massachusetts cities and towns has stimulated a large number of imaginative and varied tax and fiscal policy measures. The year 1983 has been especially rich in thoughtful, well-documented, quantified and articulated proposals. A partial checklist is indicative of the extraordinary thought and talent that is now being focused on Boston and Massachusetts tax and fiscal policy needs.

- Bradbury-Yinger

The Bradbury-Yinger report for the Boston Workshop Series (Revised edition, September 1983, presents the following alternative themes to deal with Boston's needs for FY1984, FY1985 and FY1986:[31]

- Productivity improvement
  (equal to 4% of expenditures);

- Service reductions
  (5% would save $40 million);

- State takeover of the penal system, veterans benefits and hospitals
  ($30 million);

- Districtwide payroll tax to support the MBTA
  ($42 million);

- A 15% parking excise, half of the 1.3% hotel-motel tax add-on, and 3% meals tax add-on
  ($20 million);

- $150 million additional state aid to cities and towns annually, and 15% to Boston ($22.5 million).

The authors sum up. "No one of these items by itself can eliminate Boston's expenditure-revenue gap. Indeed, no two of these items could eliminate the gap, and acting on its own Boston cannot eliminate the gap

without severe cuts in its public services. The conclusion is inescapable: Boston cannot adjust to the 1980s without help from the state in the form of state takeover of city responsibilities, the authorization of new revenue sources, the provision of more aid, or some combination of the three."

- Slavet-Torto

The Slavet-Torto "Menu of Options" provides some additional themes and some overlap.[32]

- FY1984 Collective bargaining
  (a possible cost of $25 million)
  and Use of appropriation reserves
  ($20 million);
- Fire service fee
  ($16 million);
- Budget cuts
  ($5-$10 million);
- Sale of assets
  ($15-$20 million for FY1984, $45 million in FY1985 & FY1986);
- MBTA costs to be absorbed by State
  ($41 million in FY1984);
- County correctional costs to be absorbed by the State;
- Incremental local pension costs to be absorbed by the State
  ($10 million in FY1985 and $20 million in FY1986);
- State aid annual increase of $150-$200 million to cities and towns with 20% to Boston
  ($30-$40 million)
- Parking excise tax of 20% would yield $13 to $15 million;
- Hotel-motel excise tax, after the "Tregor" bond repayment
  ($15 million);
- Payroll excise tax at 1%
  ($50 million).

- Andrew Reschovsky et al., State Tax Policy: Evaluating the Issues, MIT-Harvard Joint Center for Urban Studies, 1983

Reschovsky evaluates the benefit to Boston of a statewide add-on or expanded sales tax and/or a payroll tax collected by the Commonwealth and returned to the city and town of origin.[33] He concludes that Boston's share of state sales tax revenue would be less than the proportion it currently receives under the lottery formula for state aid distribution, while the ratio of state payroll tax proceeds would be greater. This comes about as a result of Boston's smaller share of state retail sales (10 percent) and larger share of state employment (20 percent), in comparison with the lottery formula.

- Michael J. Barrett, State Representative

Michael J. Barrett's eloquent article in the Boston Globe Magazine of August 7, 1983 proposes a forward-looking mobilization of constituencies.[34] "The next mayor of Boston must court a statewide constituency....addressed to Boston's status as a confiscated city, a city divided into a part its residents control and a part that Massachusetts dedicates to common use without offering so much as friendship in return. The tax-exempt institutions, together with the large employers, will have to assume a prominent role in the new mayor's plan. Colleges and universities should lead the effort through their alumni operations....We could ask the cities and towns to weigh the facts carefully and to ponder the remarkable role Boston plays as a Whole Earth Catalog of tools set out for everyone's use."

- John Brouder, Staff Member, State Legislature Taxation Committee

Raising the question, "Should Bostonians subsidize the suburbanites who use the city?", John Brouder proposes "three possible mechanisms for framing a response".[35]

- State reimbursement to Boston for tax-exempt property, utilizing the Connecticut precedent would give Boston $15 million;

- A local-aid formula, based on "a realistic evaluation of the cost of providing basic, necessary services and the fiscal capacity of each municipality to meet these service needs";

- A diversified revenue base, including a region-wide sales or payroll tax to finance the MBTA. "Such a plan could save Boston almost $40 million annually."

- Kirk Scharfenberg, Boston Globe

Noting that "new revenue for Boston to pay for essential city services is the biggest fiscal issue facing Boston," Kirk Scharfenberg proposed that "the Commonwealth pay Boston at least a percentage of the revenue it is barred by state law from collecting from nonprofit institutions".[36]

- Following the Connecticut precedent, 25 percent of the revenue that Boston would have received from hospitals and universities were those institutions taxed, could mean an annual payment to Boston, by the Commonwealth, of $30 million.

- A.A. Michelson, Boston Globe

A.A. Michelson, political editor of the Berkshire Eagle, writing in the Boston Globe (September 24, 1983), in an article entitled "Atkins bill and the tollways", suggests the alternative use of highway toll revenue, after the highway bonds have been repaid, for state and local infrastructure, through funding of the proposed Massachusetts Development Bank.[37]

- Andrew Reschovsky and John Yinger

Andrew Reschovsky and John Yinger, scholars of Tufts University and the Harvard Kennedy School, respectively, writing in the Boston Observer, September 1983, in an article entitled "Rich Towns, Poor Towns; Why Good Schools and Safe Streets Are Still Reserved for the Rich; A Guide to the Upcoming Battle Over Local Aid" (with the

assistance of scholars Katherine Bradbury, Helen Ladd, and Mark Perrault), point to the disparities among cities and towns in own-source revenues available and in the cost of public services, which lead to broad differences in the levels of service provided, even with state aid, and offer some innovative solutions.[38] See Appendix. "First, we should develop new distribution formulas for existing state aid that better reflect the goals of providing more aid to places with (1) fewer local resources and (2) above average costs". They present illustrative formulas designed to achieve these goals, and note that "Even if existing state aid was distributed in a more effective manner,....in order to prevent cuts in public services in most communities (because of Proposition 2½), the state will have to pursue one or more of three possible policies: (1) increase the total amount of local aid; (2) allow local governments to impose new local fees or taxes; and (3) shift the responsibility for providing some services from local governments to the state government".

Pre-1983 Revenue Raising

In addition to the rich and varied flow of imaginative proposals for fiscal change spun forth in 1983, certain other earlier important initiatives merit consideration by lawmakers and scholars for the next effort at reform.

- Boston Municipal Research Bureau

In its "Special Report" of April 21, 1982, the Boston Municipal Research Bureau noted "New local tax sources should be made available to Boston to broaden its tax base....In a survey of 20 comparable cities across the country, the Bureau found that the average revenue per capita

from other local non-property tax sources came to $72.90. That same average would produce an additional $41 million in new funds.[39]

- Massachusetts Taxpayers Foundation, Inc.

In 1979 and 1980, the Massachusetts Taxpayers Foundation, Inc. presented serious, substantive, well-articulated proposals for broadening the sales tax, and offsetting its regressive impact by extending the exemption threshold for income taxes for low-income households. One aim was to increase state revenue and local aid to facilitate a reduced property tax levy.

- City of Boston Fiscal Legislative Package

An imaginative and innovative "Fiscal Legislative Package" of "own-source" revenue proposals was prepared by the City of Boston and presented to the state legislature in December 1980.[40] The proposals embraced (1) local option excise taxes, (2) modification of in-lieu-of-tax payments from the Commonwealth and repeal of the tax exempt status of residential property owned by educational institutions, and (3) state reimbursement for state-mandated programs and the return of a portion of the sales tax to the city or town of origin.

Several of the more minor proposed measures have since been incorporated into state law.

The most important measures, from the point of view of revenue yield to the City, were the proposed payroll excise tax and the broadened sales tax with return of a major part (or all) of the proposed new increment to the city or town of origin.

Local option excise taxes would allow Boston, and any other city or town, to diversify its tax base, diminishing the reliance on property taxes. Several of these taxes provide for the collection of revenue

from those individuals or institutions which receive services but do not currently contribute to the cost.

A parking excise tax equivalent to 25 percent of the parking fee might yield $16 million. A higher education excise, of $75 for full-time students and $20 for part-time students, drawing on the approximately 111,000 students attending some 25 institutions of higher education in Boston, would yield an estimated $7 million. A one percent excise on charges for hospital bed use might yield $3.5 million. A two percent excise on private payrolls, for employers with payrolls of $40,000 or more, would generate $112 million for Boston. A proposed piggy-back of 1.3 percent on the current hotel and motel 5.7 percent excise, to be split evenly between the city or town of origin and the nonprofit tourist promotion agency, would provide the City with an estimated $840,000.

- Ex-State Legislator Gerald Cohen

As Chairman of the Legislature's Joint Committee on Taxation, ex-Representative Gerald Cohen introduced bills, in 1980, providing for the broadening of the sales tax, to include additional goods and services, to provide additional state revenue to support a higher level of state aid to cities and towns, to reduce the local government reliance on the property tax.

- The Master Tax Plan Commission of the Early 1970s

The Master Tax Plan Commission of the early 1970s compiled a formidable data base and proposed far-reaching measures centered on expanding the state's broad-based sales and income taxes and reducing the role of the property tax in state and local revenue.

Boston's Role in Massachusetts

In the formulation of state fiscal policy and tax revenue measures, Boston's social, economic, and fiscal role should be recognized. See Table 6-5. Boston makes up ten percent of the state's population, but has twenty percent of the jobs. The basic state aid distribution formulae--Chapter 70 and the lottery formula--give Boston thirteen percent of total state aid distributed. An estimated eighteen percent of state revenue is raised in Boston. Proposed state aid distribution formulae would give Boston twenty percent of state aid, corresponding to the City's contribution to the state production of goods and services. For FY1984, the state budget provided Boston 22 percent of the increment in state aid, to help compensate for the levy cuts in the third year of 2½. Boston generates thirty percent of business services sales, statewide. In FY1983, the second year of levy loss, the Boston levy reduction of $66 million represented 38 percent of the statewide forebearance.

The Enhanced Capacity to Raise New Revenue in Massachusetts and in Boston

At a time when new revenue is sorely needed, a broad improvement in the potential for marshalling new revenue has emerged. The business share of state and federal revenue raised has long been in decline, and there is ample room for modestly reversing this trend. Business was the principal beneficiary of the "2½" mandated reduction in the property tax levy--not homeowners, and some of these gains should be recaptured to strengthen state revenue raised. The economies of the state and the City have outperformed that of the nation as a whole since 1976, and the future prospects appear to be outstanding in view of the successful

transformation and shift to those economic activities expanding most rapidly nationally.

- The Long-Term Decline in the Business Contribution to State Revenue (and to Federal Revenue)

- The business share of state and local revenue raised in Massachusetts has been declining for more than a quarter of a century, according to the Advisory Commission on Intergovernmental Relations, in its report entitled Significant Features of Fiscal Federalism, 1980-81 Edition.[41] This finding is confirmed by other recent studies. Andrew Reschovsky, Tufts University Professor and Director of the Lincoln Institute of Land Policy Tax Evaluation Project, found, in a report entitled State and Local Taxes with an Initital Impact on Business, 1982, that, in FY1980, "Massachusetts had fallen to 49th out of the fifty states in its reliance on business taxes. Of the seventeen "social contrast" states chosen as a basis for fiscal comparisons by the Massachusetts High Technology Council, all rank higher in their relative reliance on business taxes.

In addition, reductions in the federal corporate income tax rates over the last dozen years, as well as a rising margin of allowances for accelerated depreciation and related measures, have combined to greatly lighten the federal tax burden on business.

The softer federal and state tax touch on business suggests a revenue base that could be drawn on to support state and local revenue needs in Massachusetts.

- The "2½" Reduction in the Business Property Tax Burden

An analysis of the results of the first two years of Proposition "2½" shows that the biggest beneficiaries in the reduction of the property tax level were the utilities (New England Telephone, Boston

Edison, and Boston Gas). Commercial and industrial property faired second in levy reductions, and residential property third. See Chapter 5.

This outcome suggests that it would be suitable to raise taxes on business to provide for urgently needed city revenue. After all, business would be one of the principal beneficiaries of a more adequate level of public services and public improvements.

- The Recent Notable Performance and Outstanding Prospects for the Massachusetts Economy and That of Boston

Transformation of the economic structure, signifying a shift to those industries expanding most rapidly nationally--communications, high technology, finance, business and professional services, higher education and medicine--has led to a stellar performance of the economies of the state and the City, since 1976, and the long-term prospects are also outstanding.[42] Substantial job gains have been accompanied by unemployment rates well below the national average. Because of the transformation, the city and state economies were less vulnerable to the recessions of 1981 and 1982.

The long-term outlook for growth of the Boston and Massachusetts economies is extraordinary in view of the expanding role of those industries which are growing nationally, and the lesser importance of slow-growth activities. This long-term prospect is enhanced by the very substantial private development investment recently completed, underway and planned.

As noted, the lag in public infrastructure investment could be a limiting factor.

An Opportunity for Imaginative, Innovative, Forward-Looking Law-Making

The widespread concern of scholars, fiscal analysts, and other informed observers, which has led to the notably rich flow of proposals for fiscal reform and forward-looking revenue measures, designed to address the decline in public services and public investment, at a time of relative well-being and a bright future horizon for the city and state economies, is matched by an expanding margin of revenue-raising potential. This, then, is a unique opportunity for the best minds to get together and write those laws and measures for fiscal reform that would bring Boston and Massachusetts to a new era of the flowering of public services and public investment and thereby enrich the possibilities for a better quality of life and expanding opportunity.

Footnotes

[1] The Joint Taxation Committee of the Massachusetts Legislature estimates a state and local tax burden, in relation to personal income, at 13 percent for Massachusetts in relation to 15 percent for the nation as a whole, in FY1983, 16 percent and 15 percent for state and nation, respectively, in FY1980.

[2] Massachusetts Taxpayers Foundation, Inc., State Budget Trends 1974-83.

[3] Massachusetts Municipal Association, Report on the Impact of Proposition 2½, January 1982.

[4] The First National Bank of Boston, which maintains a Municipal Fiscal Data Bank, reported that Massachusetts city and town general obligation competitive bond sales dropped from $350 million, in 1979, to $10 million, in 1981.

[5] City of Boston, Official Statement of the City of Boston, Massachusetts, Relating to $30,000,000 General Obligation Bonds, August 18, 1983.

[6] City of Boston, Official Statement of the City of Boston, Massachusetts, Relating to $20,000,000 General Obligation Temporary Loan Notes in Anticipation of Revenue, September 9, 1980.

Announcement of FY1984 property tax rates by Mayor Kevin H. White, September 21, 1983.

[7] Advisory Commission on Intergovernmental Relations, Significant Features of Fiscal Federalism, 1980-81 Edition, December 1981.

[8] Boston Redevelopment Authority, Gregory Perkins, Boston's Recent Fiscal History; City of Boston Expenditures and Revenues, 1960-FY1982, September 1983.

[9] City of Boston, Official Statement...., August 18, 1983, op.cit.

[10] City of Boston, Office of Intergovernmental Relations, The Impact of President's Reagan's Proposed Fiscal Year 1984 Federal Budget on the City of Boston, March 31, 1983.

[11] Katherine L. Bradbury and John Yinger, MIT-Harvard Joint Center for Urban Studies, Adjusting to the 1980s; Boston's Fiscal Situation in the Years Ahead, February 17, 1983, presented to the Boston Workshop Series.

[12] Joseph S. Slavet and Raymond G. Torto, University of Massachusetts, Boston's Fiscal Future: Prognosis and Policy Options for 1984 to 1986, September 1983.

[13] Samuel R. Tyler, Executive Director of the Boston Municipal Research Bureau, "First of all, balance city's '85 budget then look to long-term reforms," article in the Boston Globe, August 22, 1983.

[14] Katherine L. Bradbury and Helen Ladd, with Claire Christopherson, "Proposition 2½; Initial Impacts, Parts 1 & II", Federal Reserve Bank of Boston, New England Economic Review, January/February and March/April, 1982.

[15] Katherine L. Bradbury, Helen F. Ladd, Mark Perrault, Andrew Reschovsky, and John Yinger, "State Aid Distribution Formulas: The Need for More Equalization," article in Massachusetts Institute of Technology, IMPACT: 2½, Number 58, September 15, 1983.

[16] Dr. Neville Lee, Bank of Boston, Massachusetts Municipal Data Base; Debt Survey of Massachusetts Cities and Towns, September 1983.

[17] Representative Michael J. Barrett, "The Out-of-Towners; Invasion of the Suburbanites; Assessment of the Tax-Free Bite on Boston," published in the Boston Globe Magazine, August 7, 1983.

[18] John Brouder, "Boston Deserves Outside Help," article in the Boston Globe, August 17, 1983.

[19] Kirk Scharfenberg, "Repaying Boston for Tax Losses," Boston Globe; September 24, 1983.

[20] Joseph S. Slavet and Raymond G. Torto, op.cit.

[21] Ibid.

[22] Dr. Neville Lee, Bank of Boston, op.cit.

[23] John Avault, "Making Proposition 2½ Work Through Statewide Revenue Reform," March 23, 1982; see Volume II, Chapter 4 of this study.

[24] Joseph S. Slavet and Raymond G. Torto, op.cit.

[25] John Avault, op.cit.

[26] Katherine L. Bradbury, Helen F. Ladd, Mark Perrault, Andrew Reschovsky, and John Yinger, op.cit.

[27] John Brouder, op. cit.
Kirk Scharfenberg, op.cit.

[28] Representative Michael J. Barrett, op.cit.

[29] Boston Municipal Research Bureau, A Special Report, Broadening Boston's Tax Base; New Local Tax Sources Should Be Made Available to Boston, Vol. 82-4, April 21, 1982.

[30] Massachusetts State Senate, Committee On Ways and Means Budget Recommendations - Fiscal Year 1983, (Senate 1900, June 1, 1982).

[31] Katherine L. Bradbury and John Yinger, op. cit.

[32] Joseph S. Slavet and Raymond G. Torto, op. cit.

[33] Andrew Reschovsky et al., MIT-Harvard Joint Center for Urban Studies, State Tax Policy: Evaluating the Issues, 1983.

[34] Representative Michael J. Barrett, op.cit.

[35] John Brouder, op.cit.

[36] Kirk Scharfenberg, op.cit.

[37] A.A. Michelson, The Boston Globe, September 24, 1983, "Atkins Bill and the Tollways".

[38] Andrew Reschovsky and John Yinger (with the assistance of Katherine Bradbury, Helen Ladd, and Mark Perrault), Boston Observer, September 1983, "Rich Towns, Poor Towns; Why Good Schools and Safe Streets are Still Reserved for the Rich; A Guide to the Upcoming Battle Over Local Aid".

[39] Boston Municipal Research Bureau, op.cit.

[40] City of Boston, Office of Fiscal Affairs, Summary, City of Boston 1981 Fiscal Legislative Submission, January 1, 1981, prepared by Francis X. Moynihan, Jr.

[41] Advisory Commission on Intergovernmental Relations, op.cit.

[42] Boston Redevelopment Authority, Boston, Present and Future; Background Information for Infrastructure Planning, June 1983.

Boston Redevelopment Authority, Jeffrey Brown and Yasuko Soeno, Cyclical Changes in the Boston Economy: Comparative Trends in the Metropolitan Area, The State, New England and the Nation, 1960-1982, July 1983.

Boston Redevelopment Authority, The Boston Economy, Year End 1982, December 1982.

Table 6-1

LONG-HELD GOALS ACHIEVED:
THE NOTABLE REDUCTION IN BOSTON'S EFFECTIVE PROPERTY TAX RATE,
FY1979-FY1984

Fiscal Year	Market Value of Taxable Property	Tax Levy	Effective Tax Rate
	(Millions of Dollars)		(%)
1979[1]	5,590	436.3	7.8
1981[2]	11,500	518.7	4.5
1982[3]	12,180	440.7	3.6
1983[4]	12,800	374.6	2.9
1984[5]	13,300	332.5	2.5

Sources:

1 City of Boston, Official Statement Relating to $20,000,000 General Obligation, September 9, 1980.

2 Estimated.

3 City of Boston, Official Statement, $30,000,000 General Obligation Bonds, August 18, 1983; (Reporting State Certified Property Valuation as of January 1, 1982).

4 City of Boston, Official Statement, $45,000,000, Funding Loan Act of 1982, General Obligation Bonds, January 19, 1983.

5 Announcement by Mayor Kevin H. White, September 21, 1983.

Table 6-2

City Employees by Department

Department	Total Employees 1/1/81	Total Employees 1/1/82	Percent Increase (Decrease) 1/1/81-1/1/82	Total Employees 6/30/83	Percent Increase (Decrease) 1/1/81-6/30/83	Percent Increase (Decrease) 1/1/82-6/30/83
Health and Hospitals..	4,960	3,780	(23.8)	4,101	(17.3)	8.5
Schools(1)	7,731	6,087	(21.3)	6,286	(18.7)	3.3
Public Works	634	378	(40.4)	399(2)	(37.1)	5.5
Public Safety	4,851	3,504	(27.8)	4,106	(15.4)	17.2
Other	3,448	2,679	(22.3)	2,896(3)	(16.0)	8.1
Grant Funded	965	991	2.7	420	(56.5)	(57.6)
County	548	552	.7	623	13.7	12.9
Total	23,137	17,971	(22.3)	18,831	(18.6)	4.8

(1) Includes only full time City-funded School Department staff.

(2) Excludes 363 temporary summer employees.

(3) Excludes 416 temporary summer employees.

SOURCE: City of Boston Treasury Department.

Table 6-3

CITY OF BOSTON CAPITAL OUTLAYS
(Millions of Dollars)

Year	Amount
1960	8
1961	6
1962	10
1963	15
1964	14
1965	14
1966	20
1967	23
1968	30
1969	32
1970	58
1971	77
1972*	73
1974*	71
FY1975	90
FY1976	108
FY1977	59
FY1978	25
FY1979	8
FY1980	62
FY1981	25
FY1982	8
FY1983 (Estimated)	20
FY1984 (Planned)	30

* 18-Month Transition Period Including Year 1973 and FY1974.

Source: Boston Redevelopment Authority, Gregory Perkins, Boston's Recent Fiscal History; City of Boston Expenditures and Revenue.

Table 6-4

Estimated Cost Indexes for Selected Cities and Towns

	Total Cost Index	Non-School Cost Index
Boston	1.38	1.52
Brewster	.89	.93
Brookline	1.10	1.25
Burlington	1.19	1.10
Cambridge	1.36	1.53
Chatham	.87	.99
Concord	1.06	1.04
Chelsea	1.31	1.39
Dover	.95	.93
Groton	.97	.97
Harvard	.68	.90
Hull	1.17	1.08
Ipswich	.95	.98
Lawrence	1.21	1.23
Lowell	1.13	1.17
Malden	1.17	1.24
Medford	1.09	1.18
Milton	.93	1.05
Nahant	.92	1.04
Natick	1.04	1.05
Revere	1.11	1.15
Shrewsbury	.90	.95
Somerville	1.32	1.43
Springfield	1.16	1.19
Swampscott	1.02	1.09
Waltham	1.08	1.17
Ware	.89	.95
Watertown	1.12	1.22
Wellesley	1.02	1.11
Weston	.95	.99
Winthrop	1.13	1.20
Worcester	1.13	1.19

Source: Massachusetts Institute of Technology, Laboratory of Architecture and Planning, Impact 2½, Article by Katherine L Bradbury, Helen F. Ladd, Mark Perrault, Andrew Reshovsky, and John Yinger, "State Aid Distribution Formulas: The Need for More Equalization," Number 58, September 15, 1983.

Table 6-5

BOSTON'S SOCIAL, ECONOMIC AND FISCAL ROLE

	Boston as a % of Massachusetts
Population share	10%
Recent state aid share incorporating population, public school enrollment, and the inverse of equalized value per capita, i.e., the "lottery formula"	13%
State revenue raised (in Boston) (FY1983 estimated)	18%
Proposed state revenue sharing formula incorporating place-of-work employment role	20%
Employment share	20%
Earned income share (production)	21%
Distribution share of additional aid budgeted by the Governor and the Legislature for FY84 ($35.7 million for Boston out of an added total of $164.9 million)	22%
Retail services and business services ($183 million, in Boston, out of $458 million statewide, FY83 estimated	30%
Second year "2½" levy loss in Boston ($66 million out of a statewide scheduled loss of $174 million)	38%

Source: Boston Redevelopment Authority Analysis and Estimates.

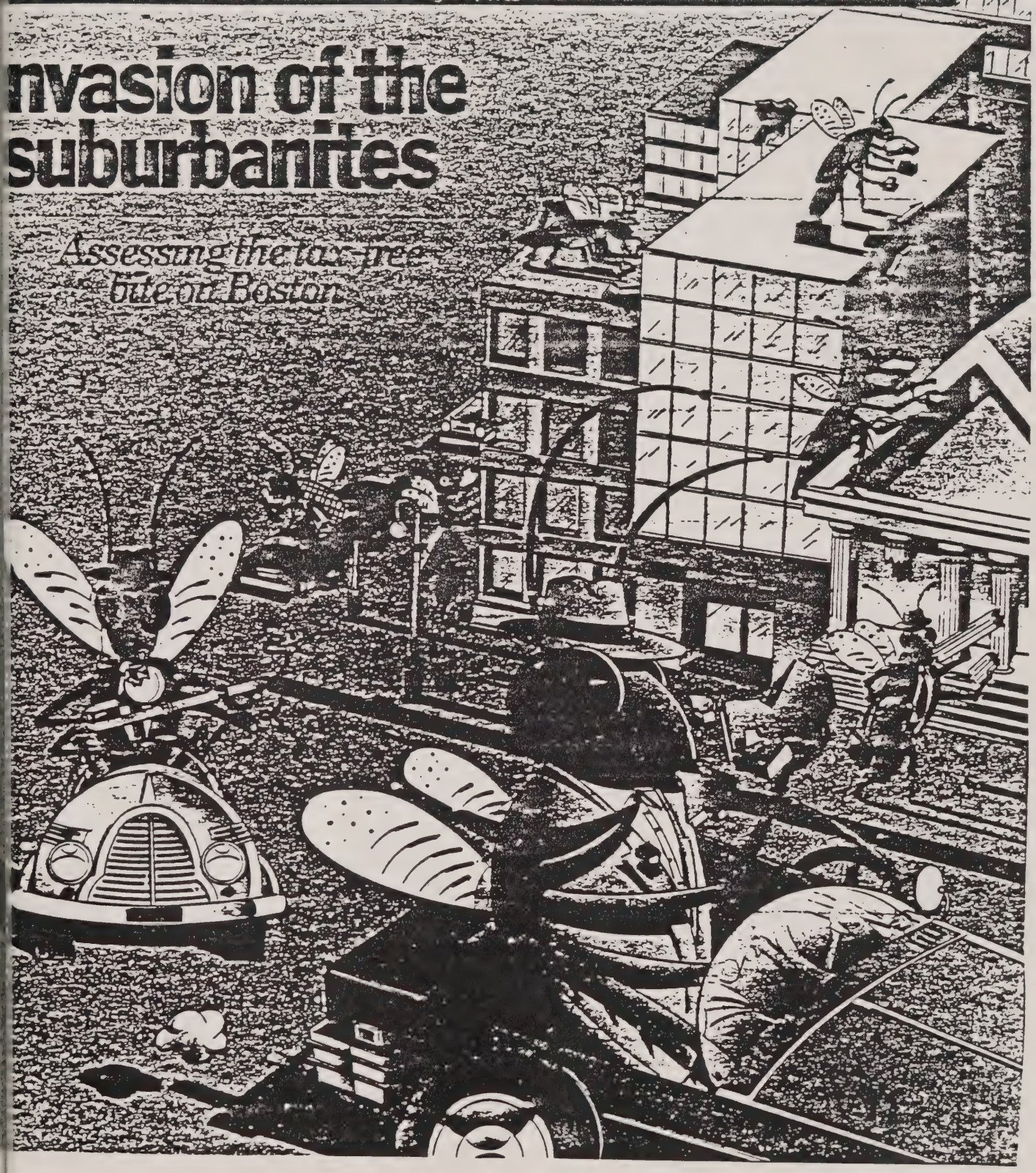
Appendix

The Boston Globe Magazine

August 7, 1983

nvasion of the suburbanites

Assessing the tax-free bite on Boston



The out-of-towners

By Michael J. Barrett

1 1949, in a little book entitled *Here Is New York*, E. B. White offered stirring defense of his favorite city against the tide of suburbanism sing in the postwar United States. The man who would gently spin *Charlotte's Web* three years later became the Bruce Lee of American etters on this occasion, loosing a flurry of chops and kicks at the eople who make their living in New York while saving their loyalties or someplace else. The city, White wrote, was being "devoured by ocusts each day and spat out each night." The commuter was a heart-ess cad who "fished in Manhattan's wallet and dug out coins, but has ever listened to Manhattan's breathing, never awakened to its norning." When the Last Commute is called, White thundered, the uburbanite "dies with tremendous mileage to his credit," but that is ll. The essay claimed a long list of virtues for the city. It succeeded so eautifully that you were led to believe New York did, too.

After making the political rounds of the state of Massachusetts for the past five years and plowing hrough a lot of writing in the past several months, I ave come to realize that the city of Boston has not ad modern boosters of E. B. White's type, while the Big Apple has had a good number — imagine the size of the citizens militia ready to bear arms to the strains of "I Love New York!" Massachusetts' capital is sort-ed through regularly by historians, sociologists, psy-chologists, and political scientists. It is the subject up for discussion by numerous blue-ribbon panels of busi-ness types and academicians, who exchange their in-sights as if they were meeting for the first time on a date.

But for all the feistiness in the neighborhoods, the city as a whole lacks twentieth-century anthems. There are no magnificent swipes at us commuters (I live in Reading and go to work at the State House) as the people who take, take, take, and never give. There are no glorious declarations of fidelity to Boston that sound right even as time goes by, moving practicing city lovers to laugh and cheer, latent city lovers to announce themselves, and unabashed town and coun-try lovers to let slip a cautious compliment or two. There is an unmet need for something confident and brave, with a persuasive heft to it, as nicely stated arguments have. Something to make a suburbanite like me stop and think. Something like E. B. White wrote, but for Boston.

Perhaps the reason for the void lies in a certain difference between Boston and other cities. People who live in New York feel that they own the place, and the attitude shows. Judging from the idle remarks and political chitchat that one hears, to live in Boston is to participate in its partitioning rather than its owner-ship. Here you can buy a piece of an urban village — South Boston, East Boston, Roxbury, or Jamaica Plain — but the offer stops there. I'm a native New Yorker, the singer crows — but who sings of being a native Bostonian? The literature on the city reveals some-thing disturbing: The term "Bostonian" seldom ap-pears other than in connection with a Yankee Brah-min, even in self-descriptions by current city dwellers. What sort of American place is it that abandons such a designation to the exclusive use of a deposed and near-ly extinguished ruling class? When people with roots in Roslindale, Allston, or Dorchester do not claim the title for themselves, they help insure that the city pre-sents itself to the rest of the world as a collection of splinters.

In New York the Saint Patrick's Day parade marches along Fifth Avenue in Manhattan, the sym-bolic heart of the entire city, prompting E. B. White to declare it "the only event that hits every New Yorker on the head." In Boston the parade marches along Broadway and Dorchester avenues in Southie, the symbolic enclave of the Irish. If they ever route it down Commonwealth Avenue and end it on Boston Common, near the spot where the town began, the change might signal neatly to the suburbs that Boston's largest ethnic group — the ethnic group of which I am proudly a member — is standing tall with the whole of a complex city. If Bostonians were to declare this solidarity among themselves, they would do much better at summoning support from the com-munities encamped on their perimeters.

THE ABSENCE OF AN EFFECTIVELY EXPRESSED and commonly accepted argument for Boston's worth has a natural relationship to the city's political isola-tion within the state of Massachusetts; it both expresses and reinforces the problem. Living in the suburbs means seldom having to say you're interested in Boston's troubles — and never having to say you're sorry about them. Whatever its other contents, the air is free of remorse.

In this setting it is likely that one Norman Tregor — resident of nearby Newton, owner of office build-ings in Boston, soon to become known as a central, if always mysterious, figure in the city's latest bout with disaster — experienced unqualified satisfaction on March 23, 1979. That is the day the Massachusetts Supreme Judicial Court saw things his way. As plaintiff in a lawsuit, he had argued that Boston's Assessing Department was keeping the values of business prop-erties relentlessly up to date and leaving the values of homes in residential neighborhoods relatively untouched. If this is true, his lawyers had argued, one type of property is being taxed more than another — something the state constitution does not allow. (The constitution does allow these variations now, since the voters approved the Classification Amendment in No-vember 1978.)

The ruling was one small step toward continuing prosperity for Norman Tregor, one giant step toward financial havoc for the city of Boston. When the losses he had experienced were calculated, Tregor was found to be owed a manageable $65,320 in tax rebates from the municipal treasury. But

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BOSTON PROVIDES medical care, schooling, and jobs to residents of its suburbs. What are they doing in return?

In Reading, 70 percent of those polled in a survey felt little or no responsibility for Boston's troubles.

Out-of-towners

CONTINUED FROM PAGE 10

the principle established in *Tregor* v. *Boston* was extended to a clamoring crowd of other litigants. Fawzi Saleh, a real estate investor and citizen of oil-rich Kuwait, was eventually to receive $2.5 million in rebates for seventeen buildings he owned around the city. The biggest winner of all was the New England Telephone Company — the sum of its gains has yet to be fully determined but is expected to be $20 million to $25 million. Those in charge of the city government's finances projected that the pay-out would total $143 million by the time all individual settlements were negotiated.

Then the other shoe dropped. In the state election of November 1980, voters approved Proposition 2½. Here was a new law that compelled reductions in future property tax collections, something quite challenging to effect in a big American city facing double-digit inflation — and boggling to contemplate in the face of double-digit inflation plus a nine-digit court verdict. Members of Boston's political power structure set to feuding over the details of a coping strategy, although there was general agreement that the city would have to go to the Massachusetts Legislature for help.

In the autumn of 1981, Mayor Kevin H. White, the City Council, and Boston's legislative delegation finally agreed upon a proposal whose major financing feature was a stiff 15 percent tax on the receipts of commercial parking lots and garages. It was all well and good that every leader in the city should accept such an idea, but the other political forces in the state proceeded to go wild — including the 85 percent of the Legislature that hails from points in Massachusetts other than Boston. At that juncture the issue assumed an acute element of danger for lawmakers from the surrounding metropolitan area, whose constituents would ante up the fee whenever they drove into the central city.

I am one of the legislators who was so confronted. My district consists of my hometown of Reading and the neighboring communities of North Reading and Wilmington. Route 128, "America's Technology Highway," has crossed the outskirts of Reading for thirty years now, but the selectmen and members of town meetings have not been dazzled by the fact. They have successfully resisted pressures for industrial and commercial development. Consequently, Reading remains, in my biased view, one of those rather small, rather quiet, almost perfect New England living places. It is well governed, well kept, proud of its schools. It is not populated by rich people but attracts middle managers, engineers, teachers, skilled craftspeople, and such. As far as attitudes toward Boston were concerned, my constituents, I had always assumed, were like me: cosmopolitan enough to appreciate its resources, conservative enough to detest its political high jinks. On the issue of extending help to the city, their basic sense of fairness would do combat with their basic sense of self-interest.

Prudent politician that I am, I was dying to know how the battle would come out. David Osborne, my legislative assistant, chose 125 Reading residents at random and designed a telephone poll. One question asked participants to state the degree of responsibility they felt for the "fiscal well-being of Reading." Their responses were reassuring: 63 percent described their senses of obligation as either strong or moderately strong, and only a curmudgeonly 10 percent felt little or no obligation. The next question asked them to state the degree of responsibility they felt for the fiscal well-being of Boston. The poll was taken at the peak of regional publicity about the city's predicament, when appeals to the consciences of suburbanites were heard regularly, but my constituents were unmoved: 70 percent felt little or no responsibility for Boston's situation.

We could have kept it simple and stopped the poll there, since the rejection of the city's case was overwhelming. To explore matters a little, though, we went on to ask some questions that turned up surprising answers. We inquired about three things: the number of household members who had found long-term employment in Boston, the number who had required overnight hospitalization there, and the number who had obtained an undergraduate or graduate degree there. It seemed to me that a person in one or more of these categories had gained a substantial benefit from the city, and I wondered how many of these people there were.

The count came to 128. That is, in 125 Reading households, randomly chosen, there were 128 instances of someone finding a job, getting major medical help, or completing an education in Boston; some families had more than one member in one or more categories. These were startling statistics for a group that had weighed in with a resounding 70 percent view that their families bore little or no responsibility for Boston's well-being. The totals disclosed a mass of human connections between my community and the city. Having stumbled upon their existence, I became curious to map their dimensions. A major exploration of such links, I found, required ferreting out figures from card files and computer disks scattered all over the place. But the information drifted in, and it mounted up. Here is some of what we found:

Culture. A smattering of statistics from arts institutions within Boston shows that Reading residents hold 30 memberships in the Massachusetts Horticultural Society, 32 memberships in the Boston Children's Museum, 34 subscriptions to the Boston Symphony, 85 memberships in the Museum of Science, 87 memberships in the New England Aquarium, 145 memberships in the Museum of Fine Arts, and 533 cards at the Boston Public Library.

Medicine. A special study of hospital admissions in the area over the course of a single year (1978), made by the Health Data Consortium, revealed that, with approximately 40 major medical institutions in the city, Reading residents had 10 admissions to University Hospital, 10 to St. John of God, 16 to St. Elizabeth's, 16 to New England Baptist, 21 to Beth Israel, 23 to the Boston VA Hospital, 33 to the New England Medical Center, 47 to Children's Hospital, 49 to New England Deaconess, 76 to Brigham and Women's, and 125 to Massachusetts General Hospital.

Education. The alumni operations of the city's colleges and universities report that, as of the spring, current Reading residents hold 1 degree from Harvard Medical School, 2 degrees from the Massachusetts College of Optometry, 8 from Tufts Medical School, 9 from Harvard Business School, 11 from Tufts Dental School, 12 from the Massachusetts College of Pharmacy, 14 from Emerson College, 15 from the New England School of Law, 20 from Wheelock College, 38 from the University of Massachusetts at Boston, 43 from Simmons College, 55 from Emmanuel College, 86 from the Wentworth Institute, 103 from Suffolk University, 239 from Boston College, 403 from Boston University, and 670 from Northeastern University.

The only offsetting statistics of which I am aware relate to Reading's participation in METCO, the area's voluntary program of one-way busing for young black Bostonians. Approximately 100 city residents were enrolled throughout the town's school system this past year. A total of 20 have graduated from the high school in the past eight years.

One's first reaction to the figures might be to feel that they reflect well on the tastes of Reading residents, but that view misses a point crucial to Boston. These cultural, medical, and educational institutions occupy city land — prime acres of it. But the land is largely exempt from the city property tax, because it is state policy to encourage such beneficial activity. The effect on Boston is significant, since another state policy designates the property tax as the only major source of revenue for municipalities. So the suburbanite who works for, say, one of the universities will pay state income tax on his or her salary. The suburbanite who studies there will pay the state sales tax on any consumer purchases he or she makes while in Boston. Yet the institution — and through it, the suburbanite — will pay nothing to the city for the use of its land or will make, at best, modest payments in lieu of taxes. In these circumstances, Reading's gain is financed by Boston's loss.

Such points do not jump out at harried suburbanites as they go about the business of getting by and earning a living. Their opinions can be much simpler. "I think the city is a dump," a Reading man said while responding to the poll. "I was in there about a year and a half ago. All the theaters I used to go to are closed. The place is dirty. I don't care if it goes down the drain."

In all, 51 percent of Boston's land area is exempt from the city's property tax. In the United States, among the large urban centers, only Washington, D.C., has a larger percentage of exempt property, and its semicolonial status is at least officially acknowledged by the powers that be — in its case, the federal government — so that everyone can move on to the task of framing responsive policies. Twenty-three percent of Boston is owned outright by the Commonwealth of Massachusetts and its operating subsidiaries, like the Port Authority; all this land is tax-exempt. Eleven percent of Boston is owned by the churches, colleges, universities, hospitals, museums, and other important expressions of our traditions and culture; all this land is tax-exempt. Even the 16 percent of Boston that is tax-exempt because it is legally part of the municipal government includes great stretches given over to general use, including Frederick Law Olmsted's celebrated "Emerald Necklace" of connecting parklands that begins at Boston Common and continues past Simmons College, Emmanuel College, and Wheelo College. Another great chun of acreage classified official as municipal land is in fact pr vately owned and produces i come but is protected by ta breaks that private develope demanded before they wou agree to take part in a ci deal.

A person on foot in Bosto can cover a great deal o ground before stepping on an that is taxable. Perhaps he o she will start out at the Bosto Public Library in Cople Square, where 35 percent o the cardholders are from com munities other than the city He or she can stroll next doo to the Prudential Insuranc Company's opulent center which includes Lord & Taylor Saks Fifth Avenue, a twenty six-story office building, thre twenty-six-story luxury apart ment buildings, the twenty nine-story Sheraton-Bosto Hotel, and the fifty-two-stor Prudential Tower. Improbabl as it seems now, Prudential, a a condition of its agreement t expand in Boston, obtained a

endment to then current law
exempted the entire devel-
ent from property taxes
forty years, until 2001; pay-
ts by the company in lieu of
s make up only a fraction
he loss. From the Pruden-
Center, a wanderer in the
can walk directly into the
estic environs of the Chris-

n Science Center, spiritual
dquarters for Christian Sci-
ists throughout the world
protected from the proper-
tax by the state exemption
"houses of worship." He or
can exit the center at its
stern end and walk into Hor-
ultural Hall, seat of the Mas-
husetts Horticultural Soci-
, a group dedicated to the
preciation of flowers and
nt life and sheltered from
property tax by the state
emption for "incorporated
ricultural societies." Of the
ciety's 5333 Massachusetts
embers, 4821 (90 percent)
e outside Boston.

The pedestrian can cross Massachusetts
enue to Symphony Hall, venerable home o
Boston Symphony Orchestra and tax-exempt
a "literary" establishment. Of the 9372 Mas-
husetts subscribers to the BSO, 7846 (84
rcent) live outside the city. He or she can then
ss Huntington Avenue to the Boston Univer-
Theatre, home of the area's newest profes-
nal dramatic venture, the Huntington Theatre
mpany, exempt by virtue of its educational
liation. He or she can leave the theater by a
r exit and go next door to the Cotting School
Handicapped Children, a privately operated
lity serving physically impaired youngsters
protected from the property tax by the ex-
ption for "benevolent" institutions. Of the
students helped by the school, 85 (74 per-
t) come from Massachusetts cities and towns
er than Boston. And so on our wanderer can
k to the New England Conservatory of Mu-
(86 percent of whose students are not city
dents), the central branch of the Boston
CA (25 percent of its dues-payers are from
ide the city), Northeastern University (90
ent of its students noncity), the Museum of
Arts (82 percent of its members noncity),
Museum of Fine Arts School (92 percent of
tudents noncity), a short stretch of the Back
Fens (part of the "Emerald Necklace"), the
iner Museum (77 percent of its members
ity), Simmons College (90 percent of its stu-
s noncity), Emmanuel College (81 percent of
tudents noncity), Wheelock College (95 per-
of its students noncity), the Winsor School
percent of its students noncity), Temple Is-
(the largest synagogue in the Boston area,
with "most" congregation members not residents of the city), New England Deaconess Hospital (87 percent of its admissions in 1978 from outside Boston), Children's Hospital Medical Center (77 percent of its 1978 admissions noncity), the Massachusetts College of Art (relaxed about keeping statistics but able to report that 85 percent of its current first-year class are not city residents), Harvard Medical School (99 percent of its students noncity), Harvard Dental School (92 percent of its students noncity), Harvard School of Public Health (94 percent of its students noncity), and Brigham and Women's Hospital (68 percent of its 1978 admissions noncity).

By the time our trekker reached Brigham and Women's, he or she would be dazed and weary, would have walked 3.2 miles through Boston, and would not have set foot on a single parcel of taxable real estate.

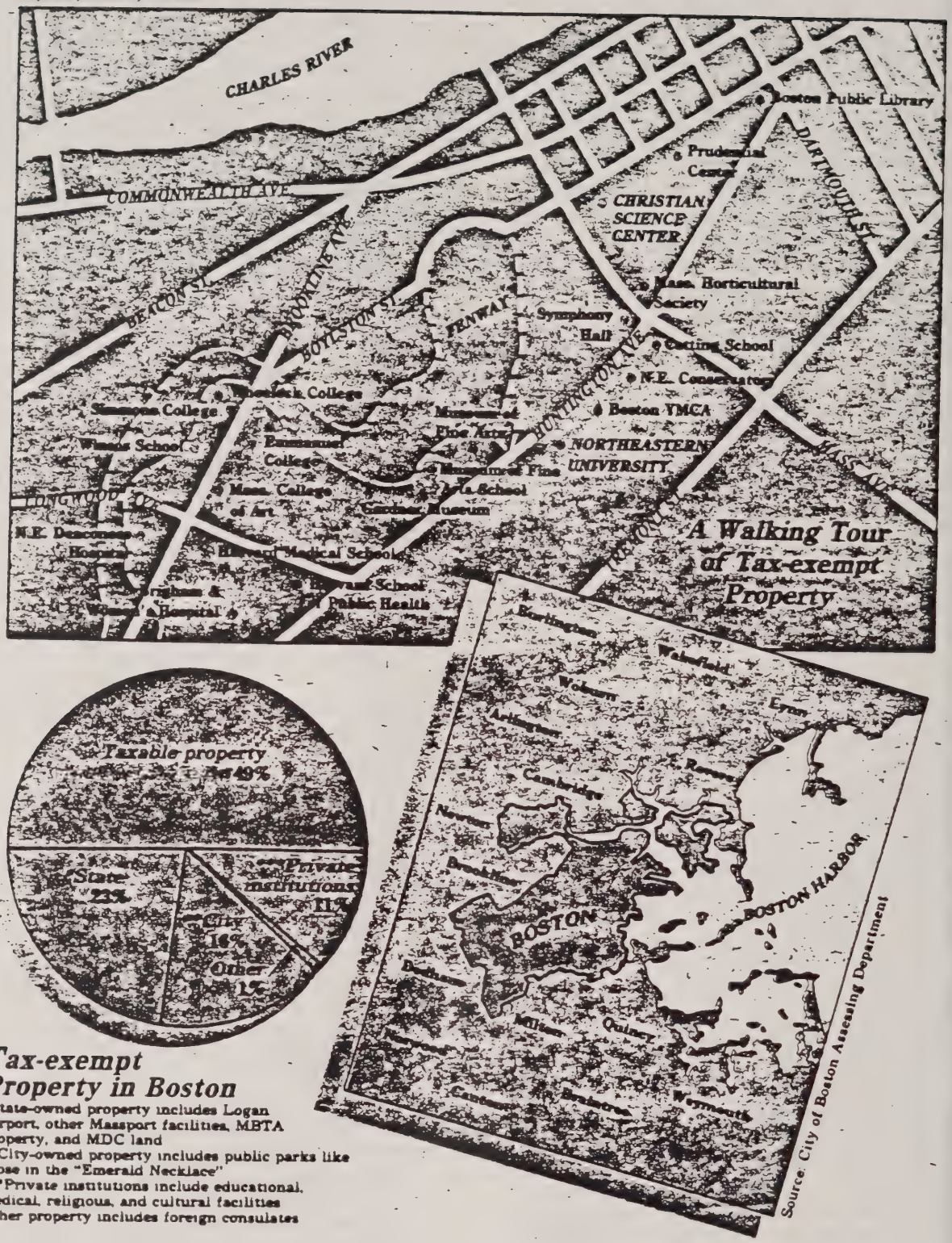
At twenty minutes to midnight on January 5, 1982, the members of the Massachusetts House of Representatives took their seats and prepared to vote on the Tregor financing bill and its 15 percent parking tax. Disagreements among the mayor, the City Council, and Boston's legislative delegation had delayed a delicate bit of work: calming objections to the tax from out-of-town legislators. In the past several days, however, the delegation had put together a full-court press. Friends were reminded of their friendships. Head counts were checked on tally sheets.

Representatives pressed their buttons, and the electronic voting board in the House chamber sprang to life. Despite the hour the visitors' gallery was packed with onlookers, who tried to keep count as the yeas and nays on the board mounted up. Equipped as I was with figures and impressions, I was one well-informed and thoroughly confused lawmaker. My poll indicated that my constituents wanted a "no" vote on the bill. The poll and the rest of my research also indicated that Reading's relationship to Boston was complicated. I voted a queasy "yes."

When the total appeared on the board, a conservative Republican who represented wealthy suburban Wellesley and who had panned the bill in stinging terms during debate let out a jarring whoop of jubilation. The vote was a 66-66 tie: Because of its failure to attract a majority, the parking tax was dead.

When a financing bill was finally enacted six months later, in mid-1982, its scope was much more modest. The immediate goal of covering the costs of the Tregor settlements was separated from a second purpose the original bill would have served — permanent diversification of the city's revenue sources, away from its narrow property tax base and toward methods of obtaining suburban contributions. Specifically, the new legislation dropped the parking tax. (In its place, the new bill called for the state's purchase of the Hynes Auditorium and a series of minor financing mechanisms.) Since breaking down statistics had become a habit by then, I researched the educational credentials of my sixty-six colleagues who had voted against the bill. Twenty-four had attended college or graduate school at tax-exempt institutions in Boston. This review brought up new variations of a now familiar question. How

Maps and pie chart by Lisa Sullo



carefully had they considered the origins of the business tax hikes that Norman Tregor had complained of — the city's need to raise more money while sparing its homeowners, already faced with some of the highest property tax rates in the country? And how carefully had they considered that the taxes on everyone concerned would have been lower if less of Boston's land were given over to exempt activities — such as the educations they themselves had received?

Boston's special mission to nurture schools, museums, hospitals, philosophical societies, and theological innovations was designed for it by the early Yankees of Massachusetts. Th were enthusiastic and vision institution-builders, etching signs of their determination the state's constitution, wh is seven years older than nation's. Section II of chap V of the original docume adopted in 1780, declares it be the duty of "legislatures magistrates, in all future p ods of this Commonwealth,

its residents control and a part that Massachusetts dedicates to common use without offering so much as friendship in return.

The tax-exempt institutions, together with the larger employers, will have to assume a prominent role in the new mayor's plan. They control a resource of enormous potential consequence: the loyalties of thousands of people in Massachusetts who hold a kind of dual citizenship — the usual status, derived from time lived in a community, and the special one, derived from time spent in Boston during the pursuit of schooling, medical care, or a livelihood.

Colleges and universities should lead the effort through their alumni operations. A survey my office conducted of twenty-two graduate schools and four-year colleges in the city indicates that they are in touch with more than 217,000 graduates residing in Massachusetts outside Boston. The individuals who belong to this vast army are leaders in every corner of the state, in part because of the educations they have received. In their usual community roles, they uphold the time-honored values of Massachusetts' smaller cities and towns. In a different role, on behalf of Boston, they could testify to the value of the region's largest city through personal experience.

At first glance, the success of a campaign such as this appears improbable. For that matter, any significant and lasting improvement in Boston's situation appears improbable. It is hard to know how to begin, given the smaller municipalities' proper emphasis upon preserving their own unique New England traditions. One of these traditions, however, is a certain regional self-consciousness and an awareness of Boston as the area's preeminent city.

There is a chance, then. If we could communicate with the cities and towns, especially the suburbs, as reasoning beings, the way we will communicate with computers someday, we could present them with statistics of the sort that appear here and ask them to disseminate the information to their inhabitants. That would be a start. We could ask the cities and towns to weigh the facts carefully and to ponder the remarkable role Boston plays as a *Whole Earth Catalog* of tools set out for everyone's use. And when they had begun to grasp the uniqueness of the place, we could read to them from Kurt Vonnegut's address to the First Parish Unitarian Church in Cambridge on January 27, 1980, in which he described the peril of coming to know something previously considered alien:

"There is this drawback, though; if you give to that sort of a stranger the uncritical respect that you give to friends and relatives, you will also want to understand and help him. There is no way to avoid this.

"Be warned: If you allow yourself to see dignity in someone, you have doomed yourself to wanting to understand and help whoever it is.

"If you see dignity in anything, in fact — it doesn't have to be human — you will still want to understand it and help it. Many people are now seeing dignity in the lower animals and the plant world and waterfalls and deserts — and even in the entire planet and its atmosphere. And now they are helpless not to want to understand and to help those things.

"Poor souls!"

If the cities and towns had eyes and ears might such a realization of Boston's dignity occur to them? Would they then be helpless not to want to understand and help? Poor souls! •

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